Field sketching and the interpretation of landscape

exploring the benefits of fieldwork and drawing in contemporary landscape practice

by

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Abstract

Field sketching **and the interpretation of landscape: exploring the benefits of fieldwork and drawing in contemporary landscape practice**

This thesis explores potential roles for field sketching in, landscape observation and assessment, landscape planning and design, landscape representation, and in addressing the experiential dimension of the landscape.

The research seeks to define and legitimise the old technique of field sketching, and the use and development of field sketches by students and practitioners of landscape architecture, and other landscape disciplines. The wider values of, fieldwork, hand-generated field notations, drawing as an interactive dialogue with others, and the sketch as a type of landscape representation, are also recognised.

Whilst accurate representation and precise geometrical definition of the landscape can now be achieved quickly with photographs and by semi-automated digital means, interpretation requires careful observation. Sketching involves an observer stopping and looking and interpreting slowly and carefully. Field sketching and the uses of the field sketch are proposed as bringing an effectiveness to landscape work, valuable because of the interpretation it involves, and the time it does take: timeless because of its simplicity.

A personal way of working is investigated, based on a *Grounded Theory* approach. Systematic analysis of case studies is made through *reflection-on-practice.* Practice observations (*data*) are collated and interpreted by practical *sorting tasks,* to propose a series of *how to do* and *why important* principles regarding field sketching. External support for the research findings is sought from literature, considering the broad themes of: fieldwork and the experience

of landscapes, field sketching and drawing as craft and expression, and developing and using field sketches.

Applications for field sketching to meet contemporary needs in landscape architecture are proposed: the sketch as a *designer's tool,* sketch-based visualisations as *interpretive images*, and field sketching as a *participative technique* that can be used to engage the inquirer, collaborators, and the public with landscape experience-grounded decisions.

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Overview

Field sketching **and the interpretation of landscape**
exploring the benefits of fieldwork and drawing in contemporary landscape practice

'For the right understanding of a landscape, information must come to the intelligence from all our senses.'

Thomas A Clark, (2000) In Praise of Walking

The following two field sketches, shown as details and in full, encapsulate many of the concerns of this study: a site-based study of a wide landscape territory; working collaboratively with others, and exploring and making field sketches alone; being in and experiencing the landscape and its changing light and weather; becoming familiar from the outside in and the inside outwards; finding and framing views; experimenting with different ways to represent the landscape, the huge sense of distance, its mountainous ancient character, visual, and less tangible qualities.

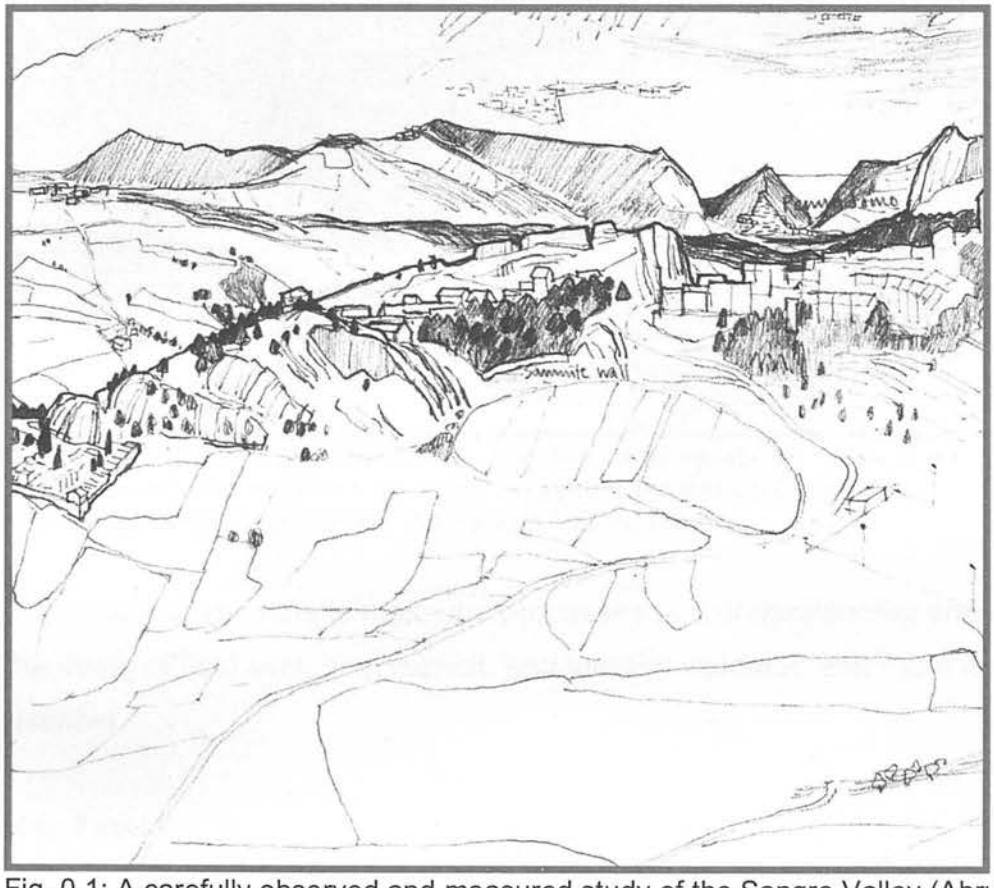

Fig. 0.1: A carefully observed and measured study of the Sangro Valley (Abruzzo) analyses the visual relationship of built features and underlying topography, and intervisibility with surrounding areas. (detail)

Fig. 0.2: A rapid and gestural sketch, from the same viewpoint but in the opposite direction, attempts to capture the atmosphere and feel of Monte Pizzi, above the Sangro Valley. (detail)

This thesis study aims to make the processes and understanding embedded in the *doing* of field sketching explicit, and thereby validated and more readily useable.

Next Pages:
Fig. 0.3: Measured study of the Sangro Valley.
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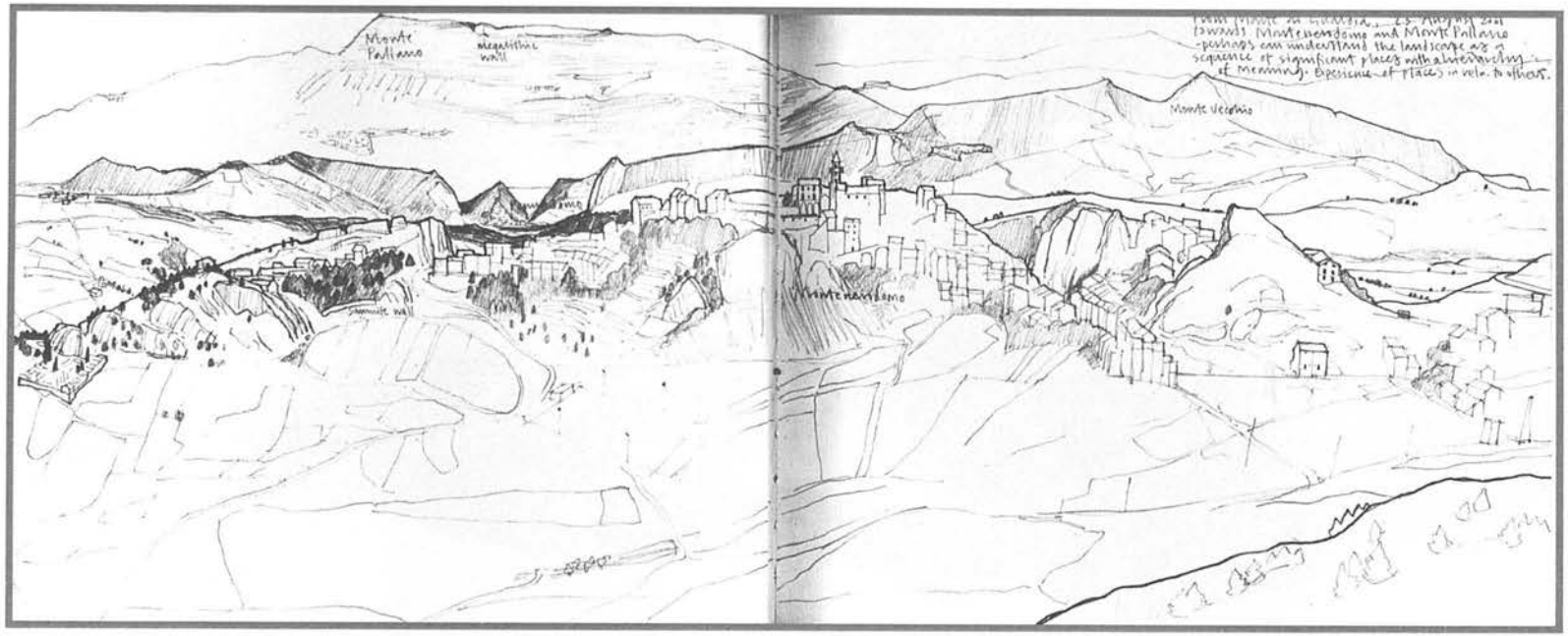
Megalithic wall
Monte Veciano


27 August 2001 Monte Pizi

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SECTION ONE

Research background and approach

Section One sets the background to the research, establishing the research problem and aims, the scope of the study, and anticipated areas of application. Some historical context about observational drawing and field sketching is provided, up to the recent decline in both fieldwork more generally, and hand-generated graphics. The old technique of field sketching is reviewed against contemporary needs.

Contents

Preamble

As a child visiting Abbott Hall in Kendal I was taken frequently to see a large Ruskin painting of an alpine pass; a terrifying gorge to the right and a tiny group of travellers moving along a route hugging half way up the precipice. My mother's choice was rather alarming, and I was happy to retreat to the comforts of a glass domed exquisite miniature peddler's shop. But over the years I was impressed by Ruskin's detailed paintings of rocky becks and ferns, and the botanical studies of mushrooms by Beatrix Potter. Although the realities were all around home in the Eden Valley, these works had intensity beyond reality that at the time I didn't question and just enjoyed for their beauty and admired for the skill. In retrospect these early fascinations with models and representations of the details and particularities of the world were above all a wonder and desire to emulate such exacting observation. Looking was interesting enough, but drawing actually drew out something else from the subject and activated my own curiosity.

Studying and practising as a landscape architect since the mid 1980s I have witnessed a shift in field and design office techniques. In the field, topographic surveys and site appraisals now use quite different techniques and tools. Hand written and drawing based systems of notation such as mapping and sketching, which require involved and often lengthy time on site, looking, pacing, measuring; tend to be superseded by terrain models derived from height data in remote offices, and relatively rapid photographic surveys. The time on site making primary observations is generally significantly less. Recent tender reviews outlining proposed methods to undertake landscape capacity work, time allocation and significance given to site work is evidently variable across landscape consultants. Receiving little specification in professional practice guidance, fieldwork is recognised, but not embraced.

In the studio, hand written and hand drawn and rendered plans and visualisations are becoming rare as computer based technologies, computer aided design (CAD), graphics packages, and geographic information systems (GIS), become increasingly powerful and easy to use. Staff undertaking this technical work, or interpretation of it, may not have any direct experience of the place for which they process data. The connections to site work and observations become more tenuous.

While the new techniques are impressive in their effectiveness to represent reality and ideas, the light of observation and life of human engagement arguably become less intrinsic aspects of the work. My own preference to work with hand drawn visuals, and place importance on time in the field has seemed a practice developed through personal history and opportunities. Whilst certainly not alone in these values, I had regarded my own practice as, at best unusual, and at worst out of date.

The recognition of the potential relevance of field sketching during my Italian travels, and later the well-timed arrival of John Evans' letter (see Section Two, Preamble), has made me look again. Can we *recover* the field sketch and refine it as a practice to serve contemporary needs?

Chapter 1 Research background

Introduction

Chapter 1 defines the key terms used in this thesis, and introduces the research background, in the context of a historical perspective on field sketching. Field sketching is an old technique, with a variety of historical uses. However there have been recent declines in contemporary applications with the advent of new technologies. This contrasts with the recent upsurge of interest in drawing. Chapter 1 introduces these trends:

- The origins and evolution of field sketching and observational drawing, to and fro between the arts and sciences, are outlined. A brief history of general uses across various disciplines is given. The recent decline in field sketching and more generally in being in the field, and the shift away from hand-generated forms of notation and graphical representation, are presented. These have generally occurred alongside ongoing development of new techniques for recording and imaging, and greater degrees of working remotely from sites.
- Interest and enthusiasm in drawing has greatly increased over the last ten years. This has been generated in part by the Campaign for Drawing, and highlighted through the Big Draw events. The Drawing Research Network operates online, and has also provided ready access to current activities, research, and dialogue regarding drawing.

In spite of the recognition of the broad benefits of drawing as a practice; for pleasure, for its critical role in learning and development, as a core activity of the

visual arts, and within the professions and trades, including architecture and design; the related activity of field sketching appears to have been relegated from core skill to a non-essential or desirable one within landscape architecture.

The research background sets out the research problem as a current gap in approaches and techniques within landscape disciplines to address visual, spatial, and experiential considerations in the larger scales and rural context of the landscape. The overall aim of this thesis is to review the old technique of field sketching, and re-evaluate it against these contemporary needs in landscape practice.

Definitions: *field sketching*, drawing, expressive and analytical drawing, interpretation, and landscape design

Field sketching

A field sketch is a site-observed and hand-generated drawing, undertaken on location.

Sketching is a term that has connotations of *'amateur practice'* within fine art, arising from the use of the term *'sketching clubs'.* Perhaps there is something of the playful, or spontaneous, rather than the serious in the derivation of the word. Allison Dutoit looks at the derivation of " to sketch" as being from the Italian *schizzo,* which means "to splash". (Dutoit in Treib, 2008a, p.151) However, in the discipline of landscape architecture field (or location) sketching has been regarded as a core professional skill, essential in making site observations of the subject of interest, the landscape.

Careful observational drawing *in the field* is one of the primary concerns of this thesis. However, *field sketching* as a practice extends beyond the drawing per se to the wider experience of the landscape, how we access that through fieldwork, how movement and conversations influence our perceptions.

In addressing *field sketching* the study considers the potential benefits and applications of fieldwork and observational drawing.

Drawing

James Corner describes drawing in landscape architecture:

> *'....landscape architectural drawing – a textual medium which is secondary to the actual landscape - can never be simply and alone a case of reflection and analysis; it is more fundamentally an eidetic and generative activity, one where the drawing acts as a producing agent or ideational catalyst.'* (James Corner, 1992, p.243)

Marc Treib makes the distinction between naturalism / depiction and images expressing, embodying, and epitomizing, and suggests this distinguishes drawing in the art world as opposed to drawing used by designers. (2008a, p.viii). He states:

> *'Idea, form, media, technique. These factors coalesce in the making of drawings'* (Treib, 2008a, p.24)

Christopher Gubbs similarly recognises drawing as a synthesis:

> *'Drawing is a combination of intuition, observation, and application, all so inextricably linked as to defy logical thought taken by itself'* (Gubbs in Treib, 2008, p. 105)

The power of drawing, and the quality of a drawing is expressed by Laurie Olin, one of landscape architecture's principle advocate of drawing and sketching:

> *'Good drawings are a record of being alive, of seeing something intensely at a particular moment, in a particular way, and of getting some compelling record, an insight or feeling down in graphic form.'* (Olin in Treib, 2008, p.84)

Expressive and analytical drawing

The researcher has recognised a distinction between approaches to landscape representation through both working and observing the work of others: freer more spontaneous work, and more careful observed and to some degree measured drawings. In the former the expressive use of materials and gesture in more experimental mark making is apparent in the resulting drawings, but there is also a different mindset, where involvement tends to be more focused on inner dialogues. With precision and control, fixed qualities are sought in the materials and attention focuses on outer observation.

Both of these processes are interpretative, but with the latter there can be some illusion of objectivity. However, whilst the thought is that nothing extraneous is added, making a drawing is always selective, but the criteria may be more readily determined and set. There is interpretation, but with some method.

James Corner considers the distinction, contrasting more purely analytical with poetic approaches, and calling for a broadening practice with respect to landscape architectural drawing:

> *'Metaphorical / analogical drawing is thus radically different from analytical drawing, which is more instrumental and calculative than it is poetic and imaginative. The generative free-play of metaphorical and deictic drawing, in dialogue with the discipline of notation and projection, is a critical and speculative practice that demonstrates the chiasma of landscapes construal and construction. Rich with significance and interpretive ambiguity, landscape architectural drawing as a synesthetic and commutative medium might better afford a richer realisation of ideas within the built environment. ….in essence, the drawing is a plot, necessarily strategic, map-like, and acted out.'* (Corner, 1992, p.275)

Interpretation

Interpretation is now a term well understood as a professional activity associated with visitor management. Tim Ingold's quote well encapsulates a broader philosophical understanding of the term:

> *'Any act of description entails a movement of interpretation. What is given to experience, in this mode, comprises not individual data but the world itself. It is a world that is not so much mapped out as taken in, from a particular vantage point, much as the painter takes in the landscape that surrounds him from the position at which he has planted his easel.'* (Ingold, 2007b)

Field sketching is presented and evaluated as a visual language and activity that has been developed through practise as a technique that can be used in the interpretation of landscape and culture.

The term interpretation (as used in the in the title) is used to signify a philosophical approach and not the professional activity. It is considered as an approach to understanding and communication about the landscape, where the aspect of an individual's explanation, as compared to objective fact, is implicit and valid.

The *interpretive image* is promoted as a way to understand images that are constructed with specific objectives of exploration or communication in mind. The benefits of field sketching and the field sketch are considered in development of imagery that is explicitly interpretative.

Landscape design

This thesis explores the application of field sketching across various areas of landscape architectural practice, including landscape design. The context is in rural and larger scale landscapes, where design decisions tend to address broad land uses and land cover arrangement, resultant landscape character, landscape and visual impacts and the principles of mitigation measures, massing and form, structural aspects of features, such as edges, and *appropriateness*, or *landscape-fit.* This area of work is often referred to as landscape planning, in education and professional landscape practice.

Landscape design more commonly addresses and is professionally understood as urban contexts and the spaces around buildings, such as parks, streets and gardens. There can be a focus on the craft of detailing and specification of materials, and the link to implementation is more direct.

However, the term landscape design is retained through this study as it is recognised that that the processes of decisions and judgements are not dissimilar, but are applied in a different context. The fundamental spatial and visual training and skills base to making design decisions accompanies both areas of work. It is the utility of field sketching as a technique to assist in these core areas that is being considered.

Whilst the outputs of landscape planning can tend to be zonation maps, written guidance, policy and advice, the practitioner must still translate these from the spatial and visual phenomena of the landscape. It can be argued that landscape planning, as an activity, would carry more influence if it did utilise a graphic language of landscape representation that articulates the landscape character, spatial and visual aspects in the presentational outputs.

A historical perspective on *field sketching*: the declining practice of observational drawing

Reviewing an old technique

Tim Ingold looks at the history of the line, as an extension of hand gestures, which left traces on surfaces:

> *'Line making of one sort or another is as old as speech'* (Ingold, 2007a, p.149)

Observational drawing is an old practice, developed perhaps most keenly for scientific inquiry and persisting most obviously in the arts.

Observational drawing in pursuit of understanding

Field sketching and observational drawings were historically the primary means of representation, but also of investigation and discovery about the natural and cultural worlds.

In David Attenborough's essay, (2007, p.8-37) Picturing the Natural World, he introduces the depiction of the natural history, as a means for people to draw what they valued and had carefully observed: the bulls and horses in the ancient caves, painted by prehistoric hunters; the inclusion of plants in the wall paintings of Egyptians, who were farmers and cultivated gardens, vines, and fields of grain; the more emblematic animals of the saints in early Christian manuscripts and English bestiaries; and the return to exacting observation in the scientific spirit of the Renaissance, with the work of Leonardo da Vinci, at the dawn of that age, leading on to the catalogues of the Discoveries, such as by the Swiss doctor, Conrad Gesner, and the Italian encyclopaedist and professor of natural sciences at the University of Bologna.

Combining artistic and scientific approaches, Leonardo da Vinci was the *'archetypal "Renaissance Man"'* (Clayton, 2008, p.7). His studies of the River Arno, as with many of his drawings, represented observation from nature as the start of analysis and inquiry. This work was in fact a river engineering scheme, although we now regard it as a wonderful example of his artwork. Leonardo is defined by his drawings, but drawing was a technique common to his polymath activities: engineering, human anatomy, plant study, art commissions, costume design. His notebooks, only researched more fully over the last decades, exemplify his eclectic approach to knowledge and discovery:

> *'Leonardo was obsessed with discovery, with finding answers to question through observation and experiment ….. He pours out his ideas on to the page in almost random fashion. A sheet of writing on optics might be complemented by the sketch of a face, a brief treatise on the way to prepare a specific type of paint or the recipe for a medical cure.'* (White, 2001, p.159)

Documenting and presenting the discoveries of the new world, and investigations of the emerging sciences, drawing was part of the skills of travellers, naturalists, plant collectors, geologists, and archaeologists. Here Jenny Uglow describes Captain Cook's response to a kangaroo

> *'The emotional response of wonder was tempered by a respect for accurate description, the strange often being described by comparison to the known. …. "but for its walking or running in which it jumped like a hare or a deer". Words would not do: for people to understand what a kangaroo was really like, they needed a picture, and artists now invariably accompanied the explorers on the expeditions.'* (Uglow, 2006, pp.155-6)

Alexander Marshal working more locally with the plants of the English garden through a year represented a shift in botanical illustrations, away from the diagrammatic woodblocks of the sixteenth and early seventeenth century herbals, to the focus on the aesthetic value of plants in finer engravings and

etchings. Susan Owens (2007 pp.106-37) sets out how Marshal, represented this new era of natural history illustration, which reflected the cultivation of plants for beauty, established by the pioneering work of John Parkinson, Paradisi in Sole: Paradisus terrestris.

Early maps are notable for their depiction of qualitative aspects of the land through small pictorial symbols of landscape features. This variation of the vertical map view communicates something directly of the observations of the surveyors, and the predicted experiences of the places the maps chart. Denis Cosgrove (1999, pp.110-11) recognises the importance of fieldwork in *'fleshing out'* abstract conception built up through maps and desk study. He considers the landscape constructions of the Renaissance, such as by Danti Liguria and the Veronese artist Cristoforo Sorte, which combined local and global through combining oblique and vertical perspectives. Both men designed engineering schemes, but their direct observations from travel brought the local *'insiders'* knowledge to mapping; the recognisable valleys, hills, towns, and other landmarks.

Access to fragile historic maps has improved since recording through digital photography and archiving, and publications. Timothy Pont's maps have been the focus of new presentation by web and book publication, interpretations and research by a range of Scottish specialists into the life and times of the mapmaker, but also study of the mountains, woodlands and towns he depicted on the maps. (Cunningham, 2006) Pont travelled throughout Scotland early in the seventeenth century and created his maps directly, drawing the features he observed with specific detail, thereby creating early pictorial records:

> *'Timothy Pont is the pioneer of our knowledge of Scotland's mountains. Earlier writers may make brief scattered references to them, but Timothy Pont is the first person to record a significant amount of information about*

Scotland's hills and mountains in written form. Above all, he is the first to produce graphic depictions of them - a total of over 350…..
The function of the mountains on Pont's manuscripts I believe to be directional. Significant mountains such as Stùc a' Chroin, above Loch Earn, are often drawn enlarged, and with prominent features exaggerated for ease of identification in navigation, often in conjunction with passes and river courses. Some of the drawings would seem to be done from a specific spot, while others, such as Ben Lawers above Loch Tay, are more likely to be a "composition"…. rather than an especial view…… some of the map information was gained from high elevation points.' (Mitchell, n.d.)

William Smith was eventually credited as creating the first geological map of Britain, and became known as *"The Father of English Geology".* (Winchester, 2001, p.281) Working initially as a surveyor in coalmines, he realised that different strata occupied relative positions, and were distributed across Britain, and that fossils were specific to particular strata, allowing younger and older rocks to be identified. He travelled throughout the country for fourteen years, making observations that would lead to his influential map. The qualitative and three-dimensional aspects of geology and history of geological survey have established a range of graphic conventions to formalise field observations: the sketch, the section and block diagrams. The artistic ability of geologists has been recognised and in a critique of *geo-artists,* (Charlton, Hambleton and Meniam, 2005) the work of Kansas geologist R.C. Moore is particularly noted, with examples of the Birdseye expedition in the Grand canyon in 1923. The use of drawing as a practice and the specific benefits it offers are noted, against current photographic practices:

'Many of the line drawings were actually done in the field by the geologist for reproduction in a publication…. Some of these early workers were very artistically talented….. there is a mystique about field sketches and drawings. They are rendered in the perception of one who makes the sketch, who sees certain features and emphasises them in relation to others – a rendering that cannot be captured in photographs.' (Charlton, Hambleton and Meniam, 2005, p.33)

Moore is also noted for a technique in bleaching out site photographs, as a basis of line drawings. Geological fieldwork continues, although now playing a role in validation of results captured through *virtual worlds,* or in capturing digital field observations. (British Geological Survey, 2008, p.39)

Mountaineers and the military drew to better understand the lie of the land and for reconnaissance.

> *'Speed and reliability are, in fact, the essence of military sketching, but it is only by practice and by following certain principles that they can be acquired. Without proper training, without understanding the value of the "control", and without the neat "finish" which comes from practice few helpful or readable sketches will be produced.'* (War Office, 1929, p.95)

However, as new techniques and developing technology have allowed survey, recording, and representation to be undertaken, often remotely and without direct observational drawing in the field, the practise has fallen out of these areas of activity, where pragmatism can be seen to have been an overriding objective.

The eighteenth century drawings of the antiquarian William Stukeley, remain a significant aspect of his archaeological legacy. Whilst his interpretations of prehistoric sites, such as Stonehenge or Avebury, as being Druidic in origin, have been discredited, the detailed surveys he made with meticulous notes and sketches continue to provide valuable documentary information about how the monuments were during his time.

> *'It is noteworthy that Stukeley was already aware of the role of fieldwork as part of rescue archaeology: he wanted to "perpetuates the vestiges of this celebrated wonder & of the barrows, avenues cursus &c for I forsee that it will in a few years be universally ploughed over and consequently deface"d'* (Greene, 2002, p. 23)

His sketches sometimes included the figures of antiquarians engaged in fieldwork, with the features of the landscapes labelled. (Greene, 2002) He followed the earlier Wiltshire studies of John Aubrey, and was contemporary with other renowned antiquarians engaged in fieldwork elsewhere, such as Johan Winckelmann's, who investigated the Romans in Italy. The benefits of Stukeley's original manuscripts as record are recognised, here for example regarding his work at Crowland Abbey:

> *'These illustrate admirably his assiduity in noting down on the spot what he saw before him, and his skill in illustrating such notes with sketches and plans. It is in such raw material that his common-sense practical attitude is most evident, the wilder flights of fancy appearing rather in the next stage.'* (British Museum, 1963, p.61)

Archaeologists continue to draw as a means of understanding the layers revealed through excavation. Archaeologist Helen Wickstead regards drawing as a key that unlocks a puzzle:

> *'Archaeologists are attempting to identify, record, and remove each layer in the reverse order to which it occurred in the life of a site. Digging is thus a process of constantly puzzling out where each stratigraphic layer or unit is..... Through making a drawing we work out what the exact dimensions of each unit are. Everything we discover must be plotted precisely in 3D and recorded on the drawings so that the site may be reconstructed using the drawings in the future.'* (Quoted in Adams, 2006, p.12)

Archaeological drawings follow set conventions and use materials that can withstand bad weather, muddy conditions and endure over time. Drawings of artefacts are still preferred to photographic record as, '*the drawing is part of the interpretation process*'.[1] (Nicholson, 2010, personal communication) The drawing can emphasise significance and bring out detail.

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[1] Andrew Nicholson is the Historic Environment Record Officer for Dumfries and Galloway Council.

Observational drawing and the arts

Observational drawing, working outside, and sketching, have all flourished within the arts, either as a primary means of expression, or as research and preparation towards pictorial or other creative works:

Ruskin bridges the sciences and the arts with his interest in geology and eye to beauty. He followed Turner's practises of working directly and out doors and was influential in the Pre-Raphaelite, and Romantic movements, painting in the open air as a physical confrontation with nature, evoking specific places on particular occasions, and with a fascination for mountain scenery, and the sublime qualities of beauty and terror it offered. Ruskin was interested in the process of drawing itself, and went on to set out instruction on and the benefits of drawing.

Working outside *in plein air* continues as a significant genre in the Arts. Influenced by the Impressionists and his own experiences in the French and Scottish landscapes, the *Scottish Colourist* S.J. Peploe (1871-1935) exemplifies how the particular quality of landscapes, and artistic sensibilities and interest are connected. Visiting Iona, it is easy to see how the extraordinary colour contrasts of pink granite and west coast turquoise seas inspired such resonant use of colour. Similarly, the St Ives artists were also following the continental tradition, and settled to work in a landscape of notable quality of light and colour.

However, artists were not just interested in the visual qualities they could access by working out of the studio, but also how landscapes made them feel. Turner was famously lashed to the ships mast to capture directly the storm. More recently, Joan Eardley painted on the storm beaten beach of the Aberdeenshire coast. Audrey Walker said of Eardley:

> *'Joan went out and worked, not just day in day out in all weathers but season in and season out for a number of years. Often she would be seen by the locals in a howling wind or snowstorm with her easel weighted down and covered with a makeshift tent, attempting to capture the power of a storm on the sea.'* (Kirkaldy Museum, 2006)

The work of official War Artists continue to have a role representing and interpreting aspects of conflict. The directly observed sketches, drawings and watercolours by artists such as Henry Moore, Edward Bawden and James McBey, are vivid and engaging. Whilst dominated by the generalities of his situation, Edward Bawden's letters home provide some insight to the loneliness and difficulties of the war artist:

> *'In the last thirty days I have covered between 2000 and 2500 miles across desert and semi-desert, sleeping in the open, in the truck, in ruined houses, and under canvas: doing a stretch of five days without spare water for washing, or shaving, or even cleaning teeth; living on bully and hard biscuits for one, making my bed, washing dirty linen, packing and unpacking nearly every day, and trying to paint. That in brief is my visit to Bengasi....'* (McLean, ed.1989, p.72)

Travel and working in residence away from home has become an aspect of art practice. A documentary and celebratory function for art has driven the involvement of the Society of Wildlife Artists (SWLA), who work, across the globe and in the United Kingdom, looking at landscapes of special and threatened habitats, and their species. Residencies have included Extramadura in Spain, The New Forest, and in the Atlantic Oakwoods in Knapdale, Sky and Sunart. The exhibited and published work is richly referenced with direct observational drawing, although in a range of expressive styles from direct sketchbook pages, to detailed traditional *naturalist-artist* studio studies, to explorations of the decorative and design potential of the wildlife. Katrina Cook produced evocative aerial perspectives, with the benefit of a flight, but also studies at ground level. Quoted in the catalogue:

> *'I wanted to produce a single piece of work accentuating the elongated ridges and lochs running NE-SW, which characterise the Knapdale region. I explored a number of options and travelled extensively during the residency, clocking up an astounding 600 miles during my stay. I drew each landmark from several directions, often being seen working from my car "safari style", standing through the sunroof.'* (The Society of Wildlife Artists, 2005)

Sketching has been taught traditionally in art schools as a way of collecting and developing ideas and reference material to work up in other mediums, such as print or paintings. Sketchbooks have been the medium of convenience for artists' work whilst travelling, and are now a recognised form of artwork, exhibited and published for their own sake. Contemporary landscape artists, such as Francis Walker (Talbot Rice Gallery, 2003), Kate Downie (The Scottish Gallery, 2009), and Kurt Jackson (2004) have exhibited and published sketchbook materials.

Jackson, who is noted for larger paintings made out of doors, as well as his sketchbook work, engages with contemporary culture, with vivid drawings and paintings, such as: at South Crofty, which elaborated on *'his social concerns, to record and document'* (O'Brien, 1996, p.2) the last working tin mine in Cornwall, at Glastonbury festival, where he was artist-in-residence in 2009, and as Greenpeace artist on the Rainbow Warrior in 2010. He provides background on his use of the sketchbook, although notably for artists the sketchbook is often an *invisible medium*, secondary to their concern with the subject. In the referenced Jackson publication, the selection is made from twenty-five sketchbooks kept over a twelve months period.

> *'The "feel" of a sketchbook is something unique, both intimate and beautiful; the more so as it gets used, becoming full and complete – a visual diary – recording all those events, places, thoughts, ideas and times. I carry a sketchbook with me at all times ….'* (Jackson, 2004, p.1)

The appeal of the artist's book has also grown, exemplified in the work of David Faithfull (Edinburgh), where the tradition of the artist sketchbook and fieldwork can be seen as a key influence. His artist's book Tide Edit explores the adjective *palindrome* through landscape and language, (Faithfull, 1997) with imagery in-part influenced by and developed from field sketches of Mull.

Sasha Grishin recognises the tendency of visual artists to keep journals, and asks the question whether they constitute a specific genre, distinct from autobiographical diaries, sketchbooks, artist's books and collections of letters. She considers the journals of Australian artists John Olsen and John Wolseley, recognises certain generalities, in spite of the difficulty of generalisations about arts practice, which is inherently individual.

> *'its value as a source for an understanding of the artist's creative process. .....* (editors) *they are dealing with a manuscript which is not a literary diary nor is it an annotated artist's book, but a written and visual exegesis which the artist felt compelled to make, an insight into a unique creative laboratory, where the main finished product takes upon itself a visual and not a verbal form.'* (Grishin, n.d.)

Declining practices: fieldwork, field sketching, hand-generated drawing

Not all landscape disciplines traditionally work in the field, and where they do, or have, fieldwork has different value and emphasis. Main field activities tend to be identifying, measuring, or counting, that is to say concerned with quantitative aspects rather than those of quality. These include physical and topographic surveys, ecological surveys, and archaeological excavation. Where disciplines do reference fieldwork, there has been a general decline in being in, or time spent in the field, as new techniques and tools develop that allow the collection of information to be speeded up and / or made more accurate. Both increased speed and accuracy can reduce indirect benefits of being in the field, such as,

more general understanding of an area, chance input through conversations, or coincidental events that inform thinking.

Archaeology, anthropology and landscape architecture are all noted areas where there has been a decline in fieldwork and associated hand-generated site notations.

Fieldwork: archaeology, *armchair anthropology,* and keeping *in touch*

The following are examples of critiques on the decline of fieldwork in archaeology and anthropology, and recent calls from the arts, science and design for fieldwork, recognising that we are *losing touch.*

With the development of experiential, or phenomenological archaeology, looking towards a re-grounding of archaeological practice in the landscape, Chris Tilley maligns desk-based approaches:

> *'Landscape is not bodily experienced; it becomes a variable historical or social discourse principally derived from maps, paintings, archives and texts. Being "out there", bodily sensing place and relationships between places has hardly been that much on the agenda. Bodies remain at the desk rather than in the field.'* (Tilley, 2004, p.27)

Similarly the importance of fieldwork in anthropology, as compared to *'armchair anthropology'*:

> *'Anthropologists work and study <u>with</u> people. Immersed with them in an environment of joint activity, they learn to see things (or hear them, or touch them) in the ways their teachers and companions do. An education in anthropology, therefore, does more than furnish us with knowledge <u>about</u> the world – about people and their societies. It rather educates our <u>perception</u> of the world, and opens our eyes and minds to other possibilities of being.*
> *.....we address these questions in the world, and not in the armchair – that this world is not just what we think about but what we think with, and that in its thinking the mind wanders along pathways extending far*

> *beyond the envelope of the skin – that makes the enterprise anthropological ..... We do our philosophy out of doors.'* (Ingold, 2007b)

However, there is a call from the arts and sciences for *re-connection* to the wider environment and places we inhabit. Robert Macfarlane, draws attention to the contemporary relevance of Nan Shepherd's The Living Mountain, and its celebration of the sensuous experience of being outdoors, given that:

> *'For more and more of us experience less and less contact with the world. We have come increasingly to forget that our minds are shaped by the bodily experience of being in the world – its spaces, textures, sounds, smells and habits ..... We are literally losing touch.'* (Macfarlane in the Guardian, 2008)

Martin Rees, President of the Royal Society and Astronomer Royal, questioned on the worrying loss of interest in the sciences in children after primary school, blamed *'lack of fieldwork and hands on experience',* (Reith Lecture, 2010) stressing the importance of practical engagement as a means to inspiring curriculum and teaching. The Centre for Architecture and Built Environment (CABE) calls for a *'new focus on ordinary places',* (Landscape Character Network, spring 2010, p.6) they highlight the need for development of *visual literacy,* and the potential role of walkabouts and school trips in achieving this.

CABE (2010, p.12) recognise the importance of *mobilising involvement* of people in *place making*, and identify the teaching of visual literacy, *'the ability to see the world through our eyes',* as a key way to do this, to counteract the inability of clients and decision makers *'to recognise or value good design'*

They refer to research that shows young people learn significantly more from a school trip than in the classroom, specifically the benefits for *'creative skills'* (p.14), as well as many other benefits (behaviour, good citizenship, et cetera).

> *'What's required is a large-scale programme of walkabouts: professionally facilitated visits to give councillors, developers and local people the chance to view and debate successful schemes together. They can see what locally distinctive design means, with a strong response to existing buildings, landscape and topography, and the use of local building materials and vegetation.'* (CABE, 2010, p.23)

Field sketching: landscape architects, *'occasionally for work'*

The eighteenth century landscape designer, Humphry Repton, used his own facility in sketching as a basis to developing before and after views to help his clients visualise his ideas for their estates. These visuals made up his *Red Books,* which were an innovative graphic approach for which Repton is as renowned, as the re-designed gardens depicted. This use of *natural views* was a departure from his predecessor Capability Brown, who used plans. Furthermore, Repton wrote an instructional text, Sketches and Hints on Landscape Gardening, (1794) which drew on the designs and observations of his Red Books to *'establish principles in the art of laying out ground'.* Field sketches can be seen to have been influential in presentation and testing of design ideas, as well as the understanding and development of conscious design principles.

In contemporary landscape architecture, this form of view-based visualisation of landscape change has tended to persist, but the photograph has taken over from the sketch as the base line image. The classic instructional text for landscape architects, Weddle's Landscape Techniques set out the importance of visual survey conducted around a system of recognised qualities: *'visual horizon, views out of site, enclosure, visual watersheds and dead ground'.* (Landscape Institute, 1979) The role of sketches is noted:

> *'Sketches are especially useful, allowing the major elements to be emphasised and insignificant and transitory elements to be omitted. The disciple of making the sketch will be of assistance in concentrating the observer's attention upon the scenic character of an area. Photography*

> *is quick and can be useful for later reference.'* (Landscape Institute, 1979, p.5)

A recent feature in the American journal, Landscape architecture, called for submissions from *'Landscape architects who still carry sketchbooks'*. (Sketch Diary, 2009, pp.86-95) The article show-cased four landscape architects' self-motivated sketching, and offering through questions addressed, an informal survey of sketching practice. Each participant outlines, their inspiration for outdoor drawing, frequency of working outside, how long a typical sketch takes, materials used and technique, and how the sketches influence their design work. It was notable both in the intent of the feature and the nature of the responses that field sketching is no longer a core professional activity. In the researcher's response to a similar feature in the British journal, Landscape, she was similarly unable to whole-heartedly contextualise sketching activities within working life:

> *'Living and working in the Yorkshire Dales, I am sketching occasionally for work, but often for the pleasure of just being out and about and exploring new places.'* (Swailes, 2010, p.40)

Sketching appears most commonly as something indulged in on holidays or as doodles in small pockets of left over time. Whilst sketching remains well regarded as a skill, and is recognised as contributing to design work, as a source of materials and planting reference, and helping to think through ideas, it has more or less become something of a hobby-activity.

Considerable resistance can be met with in relation spending time sketching on site, by those outwith the profession, who would not regard sketching as having the same importance as say, for example, a wildlife survey.

Within the profession, the use of a camera is now standard practice, and pressures on project timelines often reduce site time to a minimum. Increasing

emphasis is put on desk study, and site-based landscape and visual assessment, if at all undertaken, can now be limited to ground testing a series of pre-determined viewpoints, the representation of which is fixed in terms of camera-based criteria of lens length et cetera by good practice guidance (Landscape Institute Technical Committee, 2009, The Landscape Institute and IEMA, 2002). The notion of fieldwork gets some mention in professional guidance:

- The Landscape Character Assessment Guidance (SNH, The Countryside Agency, 2002, p.30-34) recommends the use of sketches, along with written description, checklists, photographs, and annotated maps, for Field Survey (Step 3). In practice field sketching is a technique used by some landscape architects but not by others. In general photographs and checklists appear to be more popular with practitioners.
- The Guidelines for Landscape and Visual Impact Assessment (The Landscape Institute and IEMA, 2002) refer to the Landscape Character Assessment Guidance in the section on Landscape character and characterisation, but analytical sketches are suggested in the context of illustration only:

> *'The description of character may be illustrated by photographs or analytical sketches, or both, showing representative views.'* (The Landscape Institute and IEMA, 2002, p.69)

However, further mention of the analysis aspect is not made. It also fails to mention that the photographs would need to be annotated, or otherwise interpreted to allow the reader to understand the points being made with them.

As with undertaking Landscape Character Assessments (LCA), photography underpins the main techniques for descriptive visualisation in Landscape and Visual Impact Assessments (LVIA). Within the standard professional texts

(Landscape Institute Technical Committee, 2009, The Landscape Institute and IEMA, 2002, p.151-158, horner + maclennan and Envision, 2006), technical guidance refers to either photomontages or computer-generated visuals. Visualisation with regard to photographs has come under recent scrutiny, and is discussed in more detail in the literature review and also Chapter 7.

Hand-generated drawing

The poles of hand-generated drawing and computer graphics have been discussed by illustration practitioners in the Society of Architectural Illustrators over the last years, with workshops and conferences for the two sides to debate and gain deeper understanding, and practical skills, in the other's position. The value of each type of product and the hybrid approaches that are increasingly employed, have become widely recognised and accepted in terms of the illustration product, although as technology and the focus of education moves away from traditional materials and craft skills, it is easy to speculate that in the longer term hand-generated drawings may become a less common and minority practice.

Through a combination of lectures and publications, Tim Ingold considers the decline in the anthropologist's method of typically taking field notes for up to three hours at the end of each day, by hand: and what potential differences to the observations might be encountered through typing field notes, or further in the conversion of notes to formal papers. (Ingold, 2007a, 2007b, 2007c) Whilst anthropologists are not trained in drawing, and their crafts are predominantly *writerly* (and now film), Ingold does refer to the connections between writing and drawing: *'The hand that writes does not cease to draw.'* (2007a, p.124). He also discusses the *'crisis of representation':*

> *'.....the assumption has been made that the graphic part of ethnography consists of writing and not drawing. Moreover it is writing understood not as a practice of inscription or line making but as one of verbal*

> *composition, which could be done just as well with the key board as with the pencil. Critically the keyboard ruptures the direct link between perception, gesture, and its trace that is key to observational description.'* (Ingold, 2007b)

Ingold sees the dichotomy between technology and art as being modern. Both Greek derived *tekhne* and Latin derived *artem*, refers to both skill and craftsmanship, as expert technique. The decomposition of skill in to art and technological operations occurred through industrialisation:

> *'Once bodily practice had been thus "factored out" from the creative impulse, the way was open to construct machines to execute, faster and more efficiently, what bodies had done before .....the very concept of technology shifted from mind to machine.'* (Ingold, 2007a, p.127)

As with the automations of typing and printing, *'the intimate link between the manual gesture and the inscriptive trace is broken'.* (2007a, p.3) A writer thereby conveys meaning by his choice of words, not the expressiveness of his lines.

> *'....to split skilled handicraft into separate components of "imaginative" design or composition and "merely" technical representation.'* (Ingold, 2007a, p.28)

Ingold also regards the reading of print, as compared to manuscripts, as being a sort of *'disinterested surveillance',* unlike the more participatory activity of *'the trails laid down by the hand'.* (2007a, p.28) This understanding also iterated in a broadcast, (Stave Notes, 2009) by musicians who played from original J. S. Bach manuscripts, as opposed to the printed scores, who considered *the physicality of the music in the spirit of the hand written manuscript.* In the interviews *'a wish to play again',* was mentioned. The rolling forwards of the notes gave greater expression to the emotions, and the working out and over the notes had built in layers of expression that could be understood and articulated.

The sociologist Richard Sennett (2008, p.20) recognises the craftsman, and associated handwork, as representing *'the special human condition of being engaged'.* He also identifies the problem of practical skills as being demeaned, that *'technical skill has been removed from the imagination'*. (p.21) Sennett examines the *misuse of CAD.* Whilst crediting the swiftness and precision, the virtues of manoeuvrability and sophistication of the images, the ranges of analysis available, he looks at *'what gets lost mentally when screen work replaces physical drawing'.* Here for example he interviews an architectural student:

> *'"When you draw a site, when you put in the counter lines and the trees, it becomes ingrained in your mind. You come to know the site in a way that is not possible with the computer….. you get to know the terrain by tracingand retracing it, not by letting the computer regenerate it for you,"'* (Quoted in Sennett, 2008, pp. 39-40)

Sennett lists a range of disadvantages that CAD's *'mentalised design',* with its *'decisive disconnection between head and hand',* has compared to drawing, which include: the lack of tactile experiences for the designer, the poor artistic quality of rendering, and the lack of consequence of mark making, with instant erasures and reconfiguring. (pp.40-45)

> *'Skill is trained practice; modern technology is abused when it deprives its users precisely of that repetitive, concrete, hands-on training. When the head and the hand are separated, the result is mental impairment – an outcome particularly evident with a technology like CAD is used to efface the learning that occurs through drawing by hand.'* (Sennett, 2008, p.52)

Richard Sennett looks at the specific attributes of the hand: grip, which is uniquely human, touch, and prehension. Further, he links hand, eye, thought and body posture as being fundamental to craft technique, the use of tools, and generation of *'absorbed concentration'.* (Sennett, 2008, p.149-178)

Both Ingold and Sennett's work brings attention to and understanding of the significance of hand-generated notation and drawing from other disciplines. However, as a counterpoint against these explorations of hand-craft and the persistent importance of human gesture, Kathryn Moore, the landscape design theorist and educator, questions some of the suggested *myths and legends* of design and the value of drawing, as *taken for granted* in the context of creativity:

> *'.....within psychology and the arts, the link between visual skill, drawing, intuition and perception is taken for granted...*
> *The act of pulling a pencil across the grain of paper is thought to graze or stimulate the senses, giving a more sensory buzz than could ever be achieved using the computer.*
> *....the idea that drawing somehow accesses intuition, a visual mode of thinking, grazes the senses, kicks part of the brain in to touch or makes us more sensitive to our emotional responses is (not only) misguided.'*
> (Moore, 2010, p39-40)

Perhaps it is premature to dismiss the importance of how we *do design,* in favour of *'how we think about design'* (p.9). Remaining alert to understanding the *how to dos* of practical skills and artistry must remain a concern of reflective practice. Making *doing knowledge* explicit is in fact the opposite of *taking for granted.*

Katie Hawkinson calls fo both the hand and computer to be regarded as necessary drawing tools and integral parts of both art and architectural curricula. (Hawkinson in Treib, 2008, p.160) Development of the Paint and Pixel course (Berkley) works in exercises between traditional drawing and painting class, and computer or Photoshop studio. Recognising the need to consciously distinguish and integrate the two approaches allows the beneficial aspects of each to inform the other.

Research background:
the research problem, scope, aims, and research framework

The research problem

The concept of *landscape* is complex. The meaning is not fixed, changing between disciplines and through time. A variety of specialist techniques, methods and languages have been developed by different disciplines dealing with the landscape. These are predominantly verbal and tend to be used exclusively, within specialist areas. The focus of landscape interest through applied sciences and disciplines has traditionally been in quantitative description studied through objective methods. Visual and experiential aspects of the landscape have been mainly considered within the arts. More recently there has been a further widening of focus as emergent ideas have increasingly taken on the idea of the landscape as an experiential medium, with the belief and value systems of individuals and cultures acting within that.

Visual, spatial and experiential qualities of the landscape are becoming increasingly important within these contexts. Landscape architecture does address these through approaches that have traditionally been built around existing urban design theory and conventions of architectural practice. These have tended to be used in urban contexts, at site and more localised scales. The development of landscape character assessment, and landscape and visual impact assessments, as standard tools of analysis and guidance, to support decision making in landscape planning, as input to development planning and land use management, has broadened interest to the wider countryside. Approaches are sought to address visual, spatial, and experiential considerations in the larger scales and rural context of the landscape.

Integrated methods and strategies for the landscape are now being developed in recognition that multiple objectives, sometimes conflicting, need to be met. Such approaches would benefit from common languages of exploration, collaboration and expression.

The research problem is identified as the contemporary search for new and potentially interdisciplinary methods to deal with visual, spatial and experiential aspects of the landscape. The research question considers field sketching and visuals developed from field sketches as having a particular role in such methods.

The scope of the study

The areas of, landscape architecture and planning (landscape character assessment and design), archaeology (landscape archaeology, phenomenology) and environmental interpretation (interpretive planning, wayfinding and environmental visualisation) are addressed within this study.

The re-evaluation of visualisation techniques and the value of inter-disciplinary approaches are aspects of the study. The significance of a technique that is field based is central, with direct landscape experience and the roles of movement and drawing considered through practise and theory.

The study develops the idea of *interpretive imagery*, as a form of visualisation that is grounded in the practise and techniques of field sketching and meets defined objectives of observation-based understanding (insights) and communication (language). It is proposed that this can contribute towards a methodology for addressing the visual, spatial and experiential aspects of the landscape, applicable across various disciplines and particularly considered for landscape architecture and archaeology.

In summary the study seeks to validate simple practical field techniques, and more elaborated visualisations, by reviewing some benefits in contemporary applications, and exploring new roles in developing methods to address landscape experience.

Research aims

The research aims of this thesis are:

Research aim one: To develop principles of practice, for field sketching, and visualisation / 'interpretive imagery'.

Research aim two: To evaluate the role of field sketching and interpretive imagery in some areas of landscape architectural practice.

Research aim three: To explore the potential role of field sketching as a 'participative technique' in developing integrative approaches to landscape experience.

An additional interest is to consider how readily learnable basic field sketching and visualisation skills are.

Research framework

The researcher has found field sketching and a variety of visualisation imagery developed from sketches, to be useful for landscape assessment and design, when working with others in multi-disciplinary design teams, with clients, and in public consultations, and in interpretation and visitor management. See Section Three, Preface, for further background. These anecdotally beneficial uses have been framed as the following propositions and criteria of 'usefulness'.

Propositions

1. The activity of field sketching has a value to the enquirer (practitioner and student) in providing:
    - Observation-based understanding (insights)
    - *Tacit knowledge* about landscapes
2. Field sketches and visualisations / *interpretive imagery* developed from field sketches are visual languages, valuable as:
    - A form of direct communication
    - A basis to other *interpretive imagery*
3. The field sketch and visualisations / *interpretive imagery* developed from field sketches, have potential roles in interdisciplinary working:
    - Collaborative working
    - Developing integrated approaches
4. Field sketching and visualisations are:
    - Readily learnable transferable skills, in their basic forms
    - Specifically useful at all levels of skill

Criteria of usefulness

The following criteria of *usefulness* are based on these propositions, and together these form the basis of testing the potential roles of field sketching and

visualisations / *interpretive imagery*. Field sketching and interpretive imagery have the following useful qualities:

- Practical: time and expenditure resource, technical level, cost, flexibility.
- Inclusive: readily learnable, transferable skill.
- Gathering and processing information: analyses, interprets and represents.
- Generates knowledge and engagement: raises awareness and provides insights.
- Develops skills: observation and visual thinking.
- Communication: a directly visual language emphasising experiential and qualitative aspects of places, flexible to formatting and production.

The overall aim of the thesis is to test the propositions through the criteria of *usefulness*, principally through *reflection-on-practice*.

Chapter 2 Research approach

Introduction

This chapter sets out the approach: how the thesis material has been gathered and analysed.

Field sketching and visualisation are techniques used and found to be useful by the researcher, over many years. This research does not test a hypothesis in a usual sense, but seeks to make explicit the underlying processes and test the *usefulness* of field sketching, the technique and imagery derived from it, for some contemporary applications. As a technique most obviously for recording and representing site information, field sketching is reviewed for these purposes, but significantly for wider benefits that the activity and the nature of the sketch and associated imagery generated can bring.

Starting from some anecdotal *propositions,* to be evaluated through the research, and some criteria of *usefulness* to be used, the method, or mode of argument, is built up through a deepening process of analysis and understanding. This allows these early propositions, which arose over the years as casual observations and presumptions, to be further refined and tested more thoroughly. There are two broad stages to the study: *reflection on practice* to generate a series of more formally observed proposals, and *evaluation* of these propositions to form *reasoned conclusions.*

> *'Methodology, the study of method ….. Methods should not be confused with techniques, such as radiocarbon dating, computer analysis, or the making of accurate copies of images. Method is the mode of argument*

that a researcher uses to reach explanatory statements.' (Williams, 2004, p.8)

The research has been developed through the researcher's practise as, a landscape architect, an environmental illustrator, a collaborator in an archaeological project, an artist printmaker, and occasional landscape architectural tutor, between 2000 and 2010. The context of the projects has been the rural environment, mostly within protected National Park and *scenic area*[2] landscapes, often considering the wider planning landscape scales, and mostly dealing with mountain and upland areas. See Chapter 3, Introduction, for more background on the selection of projects as practice case studies.

[2] National Scenic Areas (Scotland), Areas of Outstanding Natural Beauty (England).

Broad research context and approach: definitions, and relevance of *Grounded Theory* and reflective practice to this study

Definitions and background

The following definitions have been useful in understanding the broad research context and approach:

Grounded Theory, an inductive approach

Inductive approach: A *'reasoning process in which data are gathered and examined, hypotheses are formulated, and eventually theories are developed in response to what the data reveal; generally used with qualitative research methods.'* (Keyton, 2005)

Grounded Theory: *'A research methodology (developed and popularized by Glaser and Strauss (Glaser, Strauss,1967) …. in which the researcher collects data about a single subject without any preconceived idea concerning its content or structure. The data set is then content analysed to identify common themes or constructs, which are then used to develop generalizations about their meaning and relationship to one another (theory). Thus the theory is "grounded" in the data rather than the data having been collected to test a pre-existing theory, a procedure which it is held is likely to bias the data used.'* (Barker, 2002)

Grounded theory, an inductive approach: *'Grounded theory is most accurately described as a research method in which the theory is developed from the data rather than the other way around. That makes this an inductive approach, meaning that it moves from the specific to the more general….. The method of study is essentially based on three elements: concepts, categories, and propositions ….. concepts are the key elements of the analysis since the theory*

is developed from the conceptualization of data, rather than actual data.' (essortment.com n.d.)

'The aim of grounded theory, (as Glaser… states it), *is to discover the theory implicit in the data.'* (Dick, 2005, p.4)

Reflective practice and reflexivity

Reflection-on-action, (as developed by Donald Schön). *'This is done later – after the encounter* (practice activity). *Workers may write up recordings, talk things through with a supervisor and so on. The act of reflecting-on-action enables us to spend time exploring why we acted as we did, what was happening in a group and so on. In so doing we develop sets of questions and ideas about our activities and practice.'* (Schön, 2002)

Reflexivity: 'The idea that a person's thoughts and ideas tend to be inherently biased. In other words, the values and thoughts of a person will be represented in their work.' (answers.com, n.d.)

Reflexivity and reflection: 'Reflexivity is argued to be a broader and deeper dimension of reflection ….. being conscious of ourselves' (Lipp, 2007, p.18-26)

Personal construct approaches and core constructs

Constructs are our internal models of reality, based on observation and experimentation, and by which we classify and understand our experiences, *'embodying our most basic values and sense of self'* (pcp.net.org, n.d.) Constructs can be revealed through analysis using categorization, or sorting tasks, to access core categories. (George Kelly developed Personal Construct Psychology / Theory in 1955, and provided an analytical tool, The Repertory Grid, to access peoples' core constructs.)

Relevance of *Grounded Theory* and reflective practice to this study

In broad terms the study aligns with an inductive or *Grounded Theory* approach; starting from the *real world* of practice, making observations first, and then looking at theory and literature later in the process to see what contributions are new, and where the work builds on existing ideas and practice.

Through application of a methodological framework that allows sorting and categorisation of observations, *Grounded Theory* provided an approach to develop general and transferable principles from specific and personal observations. Essentially this allowed understandiung of the researcher's personal way of working in a universal way, through unpacking the tacit, or *doing* knowledge with reflective practice. Effectively the focus of the study was not the artistic qualities of the work per se, but the utility of field sketching, the *doing* and *using* aspects. This was set out as the processes of *how to do*, and potential benefits of *why important.* Whilst the researcher's practice was the basis of the study, the stages of *Grounded Theory* built in a way of handling the reflective observations with distance and objectivity.

The key difference between taking a *Grounded Theory* approach, as opposed to an *art-practice-led* approach was in this focus on the *doing* of field sketches, rather than artistic or presentational aspects. The main benefit was in extending understanding beyond the researcher's practice to professional application.

Working with her own work provided the researcher with a large source of data and a full understanding of the context within which it was produced. However, aware of the potential limitations and bias of drawing conclusions from the work of the researcher, a consciously *reflexive* approach was taken in order to develop objectivity in the principles from personal observations. *Sorting tasks*

accessed / revealled *core constructs / categories,* and were used to explore the patterns that emerged from the data.

In summary, the approach was significant in:

- Drawing on diverse but personal work with a wide range of attributes, to develop a significant sample of observations.
- Separating out the observations thematically from the context and specifics of the case studies: thereby shifting from personal to general.
- Distilling the findings.
- Looking for wider support to the ideas in the work of others.

The unique contribution made through applying a *Grounded Theory* approach to reflective practice, associated observations, and the subsequent sorting of this primary data, was the methodological basis to the principles that were developed. Whilst experienced practitioners in sketching and landscape representation have observed and written on their experiences, reflecting on their own practices, the statements developed tend to lack a methodological foundation, and are arguably ad hoc or anecdotal.

The study draws on *reflective practice*, as set out by Donald Schön in The Reflective Practitioner: (2002) a core text on practice and learning. This is widely referenced throughout this thesis, but is key within this chapter to contextualising the method of *reflection-on-practice*.

Works by Richard Sennett, (2008) Tim Ingold, (2007a) Christopher Tilley and others (Bender, Hamilton and Tilley, 1993, 2007) were used to provide perspectives on *how* people practice, and why that is significant. Ongoing reading and interest in art history and practice critiques has helped develop a

way of understanding the pictorial aspects of images, and a language to describe those.

Participating as tutor in two workshops, and occasional tutorial sessions, provided the chance to work with non-artists/designers. As a practitioner for approximately twenty-five years, the thesis concentrates mainly on the study of the researcher as an *expert*. Whilst not a comprehensive test, these workshops gave opportunities to see how readily learnable basic skills in field sketching and visualisation are, and how non-experts might use them.

The artistic process and quality of field sketching and the sketches are of some interest. However, a fuller understanding and definition of the basic technique, and the usefulness of making and developing the simplest drawing are the focus of the study. As such, whilst workshops are out with the main methodological approach of this thesis, they focus on these fundamental *learning blocks*. This is an area of the research with potential to extend aspects of the study. See the Conclusion for further comments regarding the potential for field sketching workshops as a technique for public participation in landscape change.

Research activities and stages: *Grounded Theory*

Research activities

The following have been the main research activities undertaken by the author:

Reflection on researcher's practise:

- Documentation of sketching and illustration processes
- Informal commentary and reflection on practice
- Formalised insights and observations
- Examples from practice

Literature review and interpretation:

- Historical literature: art history, monographs, biographies
- Theoretical literature: perception / phenomenology in architecture, anthropology and archaeology, drawing and design, craft practice, early learning and development
- Popular literature: *place* literature, art, aerial photography
- Professional practice literature, policy and guidance, from landscape architecture and interpretation: landscape character assessment, interpretation principles, landscape representation and visualisation

Development of concepts, theory, and principles, methods, validation of ideas:

- Theory review, discussion and interpretation
- Evaluation of practise against principles / criteria of 'usefulness'
- Exploration of practise towards potential new approaches and methods
- Comparative discussion of alternative approaches, methods, techniques

The actual process of inter-relationship of these activities may best be described as iterative and interwoven throughout the period of study. However, in terms of

constructing the research there has been a clear sequence of research activity and output. The subsequent sections set out the approach and methodological context.

Grounded Theory research framework

The following section sets out the thesis structure in the context of a *grounded theory* approach. This process has been adapted to suit research needs from one written to assist psychology students, (Dick, 2005), stated to be based rather towards a Glaser (1998, cited in Dick, 2005, p.2) approach.

The key stages are: *data collection, sorting, and writing*. In this thesis these equate to preparing practice case studies and collation of results (chapter 4), and interpreting the results to develop principles of practice (chapter 5).

A series of activities make the key stages up: *note-taking, coding, and memoing.* These stages and activities have been developed for use in psychological research settings, involving observation, conversations, and interview. In this thesis each stage consisted of a series of practical coding and categorisation / sorting tasks. These are set out in some more detail in Chapters 4 and 5. The case studies, the *primary data* extracted from them, and the various details of the coding and sorting mechanics (equivalent to *note-taking, coding,* and *memoing)*, are in the Appendices.

The following provides further research context to the key stages of *grounded theory,* as developed for psychological research (Dick, 2005), set out in the greyed out boxes; with additional notes on how this was adapted to the purposes of this refection-on-action based research:

Data collection
Typically in psychological research data is collected through: observation of research situation, conversations, interviews, focus groups.

The suggested stages:

- *Noting key words and coding these, establishes potential themes at the outset.*
- *Coding occurs over repeated interviews allowing themes / core categories and their properties / sub-categories to emerge as components through constant comparison.*
- *Saturation / point of diminishing returns*
- *Sampling to maintain / maximise diversity*
- *Memoing regarding the themes and categories, drawing out relationships and patterns between them, such as hierarchies of groupings.*

- This research collected data through reflection-on-practice. Rich descriptive texts were developed around seven case studies.
- The case studies were selected as representing a range of attributes, which usually at least two of the case studies shared. The number of the case studies and overlaps between their attributes ensured a good sample was achieved.
- Putting the case studies together was an initial coding and categorisation of practice activities, which drew out broad practical stages: the site visit conditions, field sketching, and developing and using the sketches.
- Making the practice observations across all case studies built in the necessary repetition, and the variations in the practice observations between case studies achieved both diversity and subtlety.
- *Saturation* was recognised in terms of the researcher making formal practice observations: increasing and overly detailed observations began to occur, which were already starting to undertake another level of analysis. (See Dales Scenery, as an example.)

Table: 2.1

Sorting
• *Grouping of the memo cards through comparison, on the basis of similar themes / core categories or properties / sub categories.* • *Use a large layout space: 'For the actual sorting I work on a large table or on the floor. First I group them on the basis pf similar categories or properties they address. I then arrange the groups to reflect on the sorting surface of their relationship. The intention is that their layout in two-dimensional space will capture the structure of the eventual report or thesis.'* (Dick, 2005, p.9)
• The practice observations were sorted using a practical paper-based database. This had the advantage of being able to take a literal overview as it could be spread over a large surface; also allowing ready re-sorting and refinement of categories. • The practice observations were disassociated from their case studies of origin, and from the groups they arose through, and reassembled afresh according to emergent themes. • A multiple stage categorisation, with physical moving around and annotation of the actual sheets arrived at *core categories.*

Table: 2.2

Writing up
• *The sorting structure is the basis of the report structure for writing.* • *Integrate the themes and properties in to a coherent argument.*
• The sorting structure of the principles required some further rationalisation at the writing stage. Duplications, overlaps and potential simplifications became more apparent, as the comparisons between practice observation statements are finer tuned. • Writing was further structured around a pro-forma developed for integrated *how to do* and *why important* principles. • Some practice observations were richer and more productive in terms of developing principles, others less so. • Some principles appear to be '*stating the obvious'* but include to provide range and links of *how to do* and *why important.* • Others make explicit aspects that are already known but not usually articulated, or not through publication. • Others are *new ideas / theory.*

Table: 2.3

Literature *The place of literature:* • *'Literature is accessed as it becomes relevant',* (Dick, 2005, p.3) *which is generally after the experiment per se.* • *Avoid being influenced by literature, which might constrain coding and sorting.* • *Literature is treated as further data: accessing and reading literature can be part of the data collection procedures.* • *'the key issue is how you treat disagreement between your emerging theory and the literature….. don't assume your data must be wrong ,,,,, you have been concerned with its fit to the data and its ability to make sense of actual experience. You seek to extend the theory so that it makes sense of both the data from your study and the data from literature.'* (Dick, 2005, p.10)
• The researcher was widely read on the subject of the research through professional landscape architectural and artistic practice and interest. It was not possible as such to avoid some influence on the categorisations developed. However, these were more directed by the practical stages of field sketching and developing visualisations, which are generally not set out in literature. The only *manual* (War Office,1929) discovered was in the final months of writing up, after data collection and sorting was complete. (In fact there was a strong correlation between the categorisations drawn from practice and those set out in the manual.) • The majority of focused literature review was undertaken based around the list of *sub category* groupings of the principles of practice. • The literature review revealed support for emerging theory / principles, although there was discordance with some areas of professional practice advice. However, this was treated as a potential lesson for practice.

Table: 2.4

Thesis structure

The structure of this thesis follows the *Grounded Theory* approach on which it is based, and as set out in the framework. Section Two sets out the researcher's practice and method of analysis. Section Three interprets the results to develop theory firstly from the primary case study practice data, and secondly seeks further support from theory.

The following table summarises the *Grounded Theory* research framework, as set out in Tables 2.1 - 2.4, alongside the stages of research undertaken as part of this thesis. Chapter 5 sets out the *Grounded Theory* method, as interpreted in this thesis, in more detail as research activity stages A – E, and with illustrations. The outputs from each stage are listed and placed against the thesis structure, Chapters 3 - 8.
Note: Chapters 1 and 2 provide the overall research background and approach, and Chapter 9 covers the concluding points. These chapters are not included in the table.

Grounded Theory framework	Research Activity	Outputs	Thesis structure
	Reflective practice		**Section Two**
Background to research situation	Preparing practice case studies through reflection-on-practice	Case studies	Outline: Chapter 3 & in full: Appendices 1-7
	Workshops	Demonstration of how readily learnable skills are	Chapter 4
	Undertaking projects (A)	Outline of fieldwork, studio work and ongoing practice	Chapter 5
Data collection	Making practice observations (B)	*Primary data:* practice observations	Chapter 5 & Appendices 8-9
Sorting task	Collation of results: sequences of *coding* and *sorting* (C)	*Categorisation:* groupings for practice principles in to *core and sub categories* / key themes and properties	Chapter 5 & Appendices 10-13
Writing	Interpretation of results (D)	*Theory: how to do* and *why important* principles	Chapter 5 & Future publication
	Developing theory from the data		**Section Three**
Writing	Refined and summarised practice theory	Summarised practice theory	Chapter 6
Literature	Support from theory and literature	The work and ideas of others	Chapter 7
	Lessons for education and practice		**Section Four**
Application	Exploring potential roles in landscape architecture	Frameworks and discussion: potential role of field sketching	Chapter 8

Table 2.5:
Grounded theory framework, research activities, outputs, and thesis structure

Reflective practice: the researcher as participant, and the principles behind the method

Chapter 5 sets out in detail, and with illustrations, how the backbone reflection-on-practice of this study has been undertaken. This section provides the context and principles behind the method, rather than the description of what was done.

The rationalisation and collation of the practice observations / results and interpretation of these to development of the *how to do* and *why important* principles brings about further reflection, as the re-iteration of the principles stimulates further recall. This refines the content and articulation of ideas, which are summarised in Chapter 6.

Presentation of reflection on practice

The main thesis case study outlines provide a summary; the background, key points, and the roles of sketches and visualisations. The formal list of practice observations was drawn out of the full case studies. These are not written in the first person and aim to lift the consequences out of what was done and achieved in a more objective way. They provide a more informed and conscious insight in to what, in practice, has become an intuitive flow of actions. The process of recall and reflection continued through this more formal stage.

The rich case study descriptions are a part of the method of reflection, parallel to *the experiment* or *survey* of a traditional research, and are not an output in themselves. They can be referred to for a fuller understanding of the projects, and a wider sample of field sketching and visualisations. They are included in the Appendices.

The researcher as practitioner / participant and researcher / observer

Reflexivity

This thesis is a practice-based research where the researcher reflects on her own practice. This potentially raises issues of bias, such as where the findings of the research are not sufficiently independent from pre-formed ideas, or the course of the research is subjectively influenced. Whilst the benefits of reflective practice are to make a practitioner's implicit and tacit processes explicit, this must still be achieved and demonstrated through a degree of objectivity.

> *'Reflexivity is used as a research "meta-methodology" which is an overt and, some would argue, a compulsory part of qualitative research. It allows the researcher to examine the way in which their research acts on the world and how the world acts on their research. ..... Reflexivity allows examination of the limitations of research method used and this insight facilitates remedial action in enabling the researcher to compensate appropriately.'* (Lipp, 2007, p.18-26)

The following aspects of the research attempted to factor in levels of independence in the role of the researcher as both practitioner / participant and researcher / observer:

- A large sample of the researcher's work was taken. The size of the sample provided confidence in observations and a range of attributes.
- The *Grounded Theory* approach provided a methodological framework to develop general principles from a large number of personal observations.
- The systematic stages built in to the research and use of pro-forma helped to focus observations and isolate judgements and decisions within the structured context. This limited potential variation arising through more spontaneous responses and observations.
- All practice was undertaken prior to reflection-on-practice: thereby the emerging outcomes from the research did not influence how practice was conducted. A typical range of professional practice developed through

programmatic briefs was represented, rather than special variations to achieve particular results.

- The selection of for the most part professional rather than artistic practice made these programmatic aspects of practice easier to factor in. Artistic practice tends to be inherently reflective and it would be more difficult to take an objective stance.
- Where artistic practice was considered (part of Dales Scenery), the observations were focused on the expressive aspects of drawing, rather than motivational aspects.
- Making the formal list of practice observations, the key procedure in extracting the data, was also a significant stage in factoring in distance / independence from the researcher being the researcher-participant. This was achieved through a formulaic approach and use of language.
- Chapters 7 and 8 provided opportunity to test the theories developed through attention to the researcher's practice, against the ideas of others: through a review of literature and also through potential application in real-world practice. These contextualise the research in a wider domain than that of the researcher.
- Established terminology and language developed by art historians to describe pictorial qualities, was used for reviewing imagery with some objective distance.

The researcher's practice

Whilst a research based on the researcher's practice, this study is concerned with understanding the *doing* aspects of the practice, and how it might be beneficially applied in landscape architecture, rather than the nature of the practice in itself. As such it does not fall fully into the type of a *practice-led research in art and design.* However, the benefits of using the reseacher's own work were significant in providing a rich set of data with in depth understanding, which would have been comparatively difficult to access and unpack in the work

of others. *Grounded Theory* was found to be useful in drawing out general principles in a consistent and methodological way. The approach also allowed the reflective insights to the processes of *doing* and *using* field sketches, without over pre-occupation with the artistry.

Note: Having undertaken the study and developed principles, it would now be a fruitful area of research to interview other practitioners. The themes that were identified would provide a basis and focus to questions more likely to get meaningful results.

However, even given the aim of the research, the artistic nature of the researcher's work will necessarily influence the potential scope and limits of the research. It is difficult to say whether the demands of the landscape subject influenced the type of drawings; or the scope to work within a style or approach led to particular subjects that supported and exemplified specific ways of working. However, in the researcher's case drawings tend to represent graphic qualities of line, pattern, and shape, over and above for example colour. Where colour is used it is often the tonal values, rather than hues that are most of interest. Topographic structure, land use patterns, and buildings are the main landscape subjects.

***Reflective Practice*: the background and principles behind the method**

The key reference for the method of this research is the work of Donald Schön. (2002) Works by Richard Sennett and Tim Ingold, provide perspectives on *how* people practice, and why that is significant. Whilst drawn on more significantly in other sections of the thesis, they are worth mentioning in context of the method. They also provide some additional *content* for some of the ideas Schön develops, which have been criticised, such as by Richardson, (1990, quoted in Smith, 2001) as offering *'...a descriptive concept, quite empty of content...'*

However, Steven Scrivener promotes *'an action process that emphasises reflection'* (Scrivener, 2000) to addresses some of the problematic aspects of *art-practice-led* research. He distinguishes normal technology versus arts based PhD research structures and recognises that Schön's work on reflective practice is useful where emphasis tends to be placed on process, as the approach builds in cycles of reflection.

> *'The relationship between issues, concerns and interests and outcomes in a creative-production project is one that changes throughout the entire process. Thus, unlike a problem-solving project, where we can largely ignore the actual problem setting and solution processes, I am of the view that description of the creative-production process should be the principle means by which students demonstrate that they are self-conscious, systematic and reflective creators…*
>
> *'…. the relationship between the issues, concerns and interests explored and the artefacts produced is so tied up with act of making that this can only be revealed through description and reflection on the underlying creative-production process. I am persuaded that Schön's (1983) theory of reflective practice provides us with ways of thinking about the nature of the creative-production process, the way past experience (both personal and collective) is brought to bear on it, the assessment of action, rigour in creative-production, and the stance of the practitioner.'* (Scrivener, 2000)

Reflective practice

Donald Schön analyses how a variety of professional practitioner's work, recognising that in non science-based professions, *'practical competency and professional artistry'* arise in ways that cannot easily be understood, and are not comparable to the *'technically rational'* approaches that do underpin science-based approaches. Knowledge and understanding is bound up through the experience and *doing* of practice, rather than learnt from externally researched sources per se. He calls this mode of operating *'reflection-in-action'*: a method of practice, *'implicit in the artistic, intuitive, processes'.* (2002, p.49)

Reflection-in-action is made up of *'knowing-in-action'* and *'reflection-on-action'*, that is tacit knowledge through *doing*, and understanding through *reflection*. Typically a reflective practitioner, through knowing-in-action, will:

> *'recognise phenomena for which he cannot give reasonably accurate or complete description, make innumerable judgements of quality for which he cannot state adequate criteria, display skills for which he cannot state rules or procedures, depend on tacit recognitions, judgements and skilful performance....'* (Schön, 2002, p.49)

This contrasts with application of established theory and techniques. In reflecting on these, the practitioner asks:

> *'What features do I notice when I recognise this thing? What are the criteria by which I make this judgement? What procedures am I enacting when I perform this skill? How am I framing the problem that I am trying to solve?'* (Schön, 2002, p.50)

How people practice

Richard Sennett and Tim Ingold have informed the understanding of, and how to articulate, the processes of *doing,* common to and underpinning a wide range of practice. This has helped to shift attention from the specific subjects of landscape study, to the processes, techniques and procedures of field sketching and visualisation. The recognition of drawing as a craft provided a rich source of comparisons with other more and less related activities.

Richard Sennett's The Craftsman (2008) is of interest in consideration of acquiring skills and practice and is referenced in the literature review. Sennett's proposes (2008, p.7) that: *'thinking and feeling are contained within the process of making,'* which provides the starting point for his review of craft practice. Further, he regards the desire to do things well is *'an enduring, basic human impulse'*, one that enhances our sense of well being, as well as being of utilitarian value. Sennett's broad understanding is used to refine the idea of

drawing as a craft in this study; the hand rendering and participative nature of field sketching an integral part of the benefits the activity can bring.

Whilst Sennett does not explicitly address drawing or sketching as stand-alone activities per se, there is much to be taken from his insightful observations on a range of historical and contemporary crafts that can be applied to this research. Of particular relevance, and considered in greater detail in Chapters 6 and 7 is his consideration of Computer Aided Design, in contrast to hand drawing. See also Chapter 1 for background on this.

Tim Ingold is an anthropologist, who explores *'connections between perception, creativity, and skill'.* (2007a, cover) He works at the interface between anthropology, archaeology, art, and architecture. The case studies he refers to throughout his work focus on the *doing* of various practices, including drawing, but also others where parallels to field sketching, such as around *perception through movement, hand generated marks,* and *knowledge through doing* can be found. Ingold's work is drawn on throughout Chapter 6.

***Reflective practice* and this study**

Reflection-in-action is used in both the subject of study, the practice and application of field sketching, and is being used as the main method of study for this thesis, reflection on the researcher's practice.

The study starts with the anecdotal working-understandings and *beliefs* of the researcher: the casual and informal observations and understanding of the value of field sketching and visualisation, built up through experience. These are presented as initial *assumptions* and criteria of *usefulness*.

The activities of field sketching and visualisation developed from it[3] are unpicked in a more conscious and consequent way, through reflection on the researcher's practice: how they are undertaken, what benefits they bring, and what procedures should be followed to perform the techniques. In this way the research aims to make explicit, and therefore explainable and validated, activities that usually remain implicit and buried from view, embedded in the tacit knowledge of practice.

This research uses Schön's work as a premise, and *reflection-in-action*, renamed here as *reflection on practice*, the main research method. The thesis reveals the principles of practice of field sketching and the visualisations developed from it, evaluates these in relation to some landscape architectural applications, and explores an integrative method to address landscape experience. The roles of field sketching, the sketch and visualisation, as techniques and mediums for reflective practice are central to the inquiry. The thesis aims to legitimise these as valuable techniques of landscape architecture, and potential components of new wider and inter-disciplinary integrative methods.

> *'When practitioners reflect-in-action, they describe their own intuitive understandings.'* (Schön, 2002, p.276)

[3] Renamed through the thesis as *interpretive imagery*.

Describing *'what I did'* and *'why important'*

The practice case studies are informally written and illustrated descriptions of 'what I did' and 'why important', with a reflective commentary. Each case study breaks an overall project down in to areas of professional practice, and within each of these a further breakdown to specific activities.

Reflective writing

Collating the images, structuring, and writing the case studies was a fundamental process in taking the researcher back to her involvement in the projects, which had been undertaken as long ago as ten years, up until the present day. These reflective initial observations gather rich anecdotal *evidence* about sketching and illustrations.

The sketchbook and drawing materials are the main mediums, and sketching and visualisation main techniques, of reflective practice, in the researcher's work. However, in putting together the case studies, the informal and *conversational* process of written description plays an active part in reaching understanding through reflection. In trying to regain or recover the perception of *the experience doing* the work, being in and responding to the landscape, speaking with others, how undertaking the work felt, how and why some things seemed to work and others not, a direct and expressive form of language was most effective. Christopher Tilley recognises that perceptual experience can be *'only described by expressive use of language':*

> *'in a purely visual description of a landscape, or in a photograph of it, we do not arrive back at that which we experienced. ..... In a text all we can hope to do is to evoke the sensuous qualities of place and landscape in a multi-sensorial way through our choice and use of words and the types of narrative structure employed, and this is the task of a richly textured carnal phenomenological 'thick' description in which we truly attempt to reflect on the character of our experience, as opposed to a thin and*

> *sensorily impoverished "analytical" account. Such an account must, of necessity, exploit the tropic or metaphoric nature of language'* (Tilley, 2004, p.28)

Chris Tilley and his University College London colleagues Barbara Bender and Sue Hamilton, worked for five annual seasons at Leskernick, Bodmin Moor, in a collaborative project primarily of archaeological interest. The project's[4] approach originated in *post processional* and *interpretative archaeology* and became a forerunner in phenomenological or experiential archaeology. See the literature review for background and definitions.

Stone Worlds (Bender, Hamilton and Tilley, 2007) is a recently published example of the reflective approach to fieldwork taken at Leskernick. This provides both references in reviewing some of the propositions put forwards by this thesis (see Chapter 7), and also in developing the principles behind the method. The book sets out a *reflexive approach to field archaeology:*

> *'one in which trying to understand how we worked and the "process" of interpretation, was as important as the end result.'* (Bender, Hamilton and Tilley, 2007, p.27)

Stone Worlds makes the reflective processes of the practice explicit in the form of its publication and intent of the communication. A significant proportion of the book and most of the introduction deal with these processes. Inclusion of discussions, diaries and personal communications, all provide insights in to the *how and whys* of what was done, the communications, and the experience of being involved and being in the place.

The Leskernick Project set out to do this and certain procedures, such as diary keeping were established as core activities at the outset. Anthropologists were involved and a sociological study was a fundamental aspects to understand *'the*

[4] The Leskernick project was an archaeological project on Bodmin Moor

process of "doing" archaeology'. (Bender, Hamilton and Tilley, 2007, p239) This gives additional insight in to the collaborations within the project, as well as a structured approach to guide, stimulate, and feedback on reflection by project participants.

This study did not establish systems separate for reflection during practice at the outset. However, keeping a sketch or site notebook do aid active recall and reflection, and have been an equivalent of *diary keeping* throughout the researcher's working life. Stone Worlds helped to contextualise the researcher's activities with respect to conscious reflective practice.

Reviewing imagery

In reviewing the pictorial aspects of the researcher's own work, critiques by art historians provided a way of understanding the images with some objective distance, and a language to describe pictorial qualities. For example:

> *'Ruskin focuses on the dramatic contrast of bright sunlight and shadows as thick cloud encroaches on the mountainside. He combines loose watercolour washes with areas of detail. This enables him to achieve a sense of space which is not always apparent in his earlier, more concentrated compositions.'* (Abbot Hall, 2010a)

This helped in understanding, for example, how some of the compositions for the Loch Torridon case study worked, such as: *the combination of well-defined landscape features, and areas of less worked page that suggests space, through implication, by absence.*

Time, memory and awareness

An excerpt of a student diary from the Leskernick Project reveals how writing the diary at *several months* after events had stimulated reflection. The process of reflection *brings forwards* in to the conscious, why something was significant:

> *'The process of writing up the original script brought forward all sorts of additional memories and thoughts to those actually noted. In this way the diary is double layered. The first remembering at the end of each day and a second memory in writing up many months later.'* (Bender, Hamilton and Tilley, 2007, p.243)

This thesis also deals with multiple layers of memory and the complexity of awareness that brings. Trying to tease out awareness about process and awareness about content was a major challenge. In writing the case studies new realisations occurred. The temptation in the writing was to slip back in to progressing the understandings gained in the original project about whatever its project aims, and thereby to loose sight of the thesis research interest in the *doing*. Separating out the case studies from the practice observations was a way to sift these aspects.

Literature overview: key elements

The key areas of literature referred to in this thesis are:

- *Reflection-on-practice,* described by other landscape practitioners
- Critique and biography of art and literary practice
- Theory on visual and other perception
- Theory about craft practice and other hand-generated mark making
- Theory about professional practice, collaboration, and knowledge
- *'How to do'* drawing guidance
- Interpretation practice, theory and principles, and practice review
- Landscape architectural theory, research, guidance, and practice review
- Visualisation and alternative representations of landscape

Literature as *data*

The outputs from reflection-on-practice were the practice observations (*data*), formalised through the *sorting task* as principles of practice (*theory).*

The main themes (*core categories*) of principles developed are:

Site visits

- Fieldwork
- The experience and perception of the landscape

Drawing in the field, and associated site notation

- Drawing as craft and expression
- Field sketching

Developing and using field sketches

- Landscape drawing, analysis and design
- Landscape representation

As typical of an inductive approach, theory and literature have been formally addressed late on in the thesis, and after the *experiment:* in this case reflection on practice. The research has been for the most part undertaken both in the field and studio, and in later reflection on those experiences. However, the scope of the literature review has been wide, taken from historical literature, theoretical literature, popular literature, and professional practice literature. An overview is presented as background at this stage, with full reference and discussion in Chapter 7.

Bob Dick (2005) sets out a variety of ways that literature can be referenced through a *Grounded Theory* approach, acknowledging that the ideal scenario (Glaser, 1998, cited in Dick, 2005) of the researcher avoiding literature closely related to what is being researched until after the stage of the experiment, such that the results are not prejudiced, is not necessarily achievable or appropriate.

Within a *Grounded Theory* approach the role of literature is different: Dick suggests that literature is accessed *'as it becomes relevant'* (2005, p.10) and that *'progressive reading of relevant literature can become part of ...data collection procedures':* also that literature should be treated as any other type of data.

> *'Constant comparison remains your core process. .....extend the theory so that it makes sense of both the data from your study and the data from literature.'* (Dick, 2005, p.10)

As such, the purpose of the literature review is not a test per se, but intended to refine the *theory.* In the case of this research, literature and theory (the ideas of

others), beneficially expands significantly on the personal observations, made through reflection-on-practice, and which underpinned the developed principles.

For this thesis general reading was undertaken over the whole period of study. Areas of literature were targeted, as representing interesting parallels in terms of concepts, approaches, or related subjects. Through the study, several gaps in theory or guidance literature were found, for which the proposed principles might provide potential areas of development. See Chapter 9.

The process of the *sorting task* was to disaggregate and categorise the stages and benefits of sketching in to a series of principles (*sub-categories*). See Chapter 5. This unravelling of tacit / *doing* knowledge around field sketching was a main aim of the thesis. However, it created a complexity and level of detail, which can be understood and presented in its parts, but should also be appreciated and used more holistically. The literature review is structured around the main themes or *core categories.* It presents a discourse around each, thereby re-entwining the strands. As such the detail principles can be reviewed against a re-mix of other data. For example issues around materials are presented with issues around expression of landscape qualities, as occurs with reference to the watercolour techniques of Turner.

This approach was in itself a type of *sorting task,* and gave rise to new sub categories within the literature review, which provide interesting juxtapositions of diverse references: personal observations on practice against academic thought, historical account against speculative new thought. The literature review presents a set of *data,* gathered as loose themes, which broadly align with the themes of the practice principles, but do not attempt to address each principle, one by one. Some direct overlaps may occur, but the intention is that Chapter 6 will enrich and deepen the understandings around field sketching, rather than directly confirming or otherwise the principles in a literal sense.

The following summarises the main sub sections and references and from the literature review, which is set out in full in Chapter 7.

Fieldwork

The significance of fieldwork

Even where still undertaken, site visits, fieldwork, field trips and walkabouts are often an invisible part of acknowledged project methods, interpretations, or results. The references to the constituent parts of these activities, its benefits and uses, drawn from fieldwork-based practice, across the disciplines of anthropology, geography, environmental psychology, archaeology, planning, and landscape architecture, and from contemporary literature and arts practice, can all extend an understanding of the significance of fieldwork. The use of photographs and maps as a proxy to experience is considered as a sub-theme.

Lone working and collaborative fieldwork

The solitary practice of artists and writers provides insights of, the *immersion in nature*, chance encounters, the spirit of discovery, and sought for states of emotional inspiration, well-being and tranquillity. The Leskernick Project (Bender, Hamilton, Tilley, 2007) provides a specific example of a collaborative archaeological project that worked with anthropologists, geomorphologists, and artists. The fieldwork aspect was a subject of *reflective practice:* the published account of which has been drawn on to illustrate some of the processes, benefits, and drawbacks encountered.

Viewpoints and views

Viewpoints and views are considered through the idea of *the Picturesque*: the historic background and continued contemporary relevance and applications. *Picturesque* developed as a one of the founding principles of the concept of

landscape, and in itself is a system for describing visual qualities and the aesthetics of a type of scenery, captured well as a static view. The importance of patterns of access, movement and approach are recognised in terms of how static views compose and are framed, as well as pointing the way towards a more holistic model of perception.

Familiarisation

Some philosophical and poetic observations are made on the immediacy of first impressions, alongside Ingold's (2007d) theoretical *observational path of being with*. Again, the Leskernick Project provides a detailed practice-based example, this time of familiarisation, made available through published excerpts of diaries.

The specialness of walking

The *specialness* of walking looks through the eyes of artists, a mountaineer, landscape architects, a poet, and anthropologists, at the particularity of walking as an experience, and how it seems to connect our inner landscapes to the outer world.

Fragmented landscape experience

Fragmented landscape experience looks at multi-sensorial perception, and the importance of movement in both expanding the view and stimulating the senses. This understanding is being developed in anthropology (Ingold), experiential archaeology (Tilley), and the social sciences (Heft).

The experience and perception of landscape

Art and literature: expressing the experience of landscape

Art and literature: expressing the experience of landscape, provides examples of artists and writers, who through their arts, explore ways to express the experience of landscapes, which challenge conventional *perspectives.*

Perception and *The Theory of Affordances* &
Phenomenology and *embodied* experience

Two subsections introduce Gibson's *Theory of Affordances,* as interpreted by Harry Heft (2010), and *phenomenological* understandings developed by Chris Tilley (1994, 2004) and Tim Ingold (2007d). These provide a theoretical framework that draws the earlier themes of movement, multi-sensorial perception, and expression of landscape experience together, connecting perception and its expression with movement and action. The theory is primarily interested on *how* perception occurs. This thinking is developed in more detail in Chapter 8, to explore potential applications of field sketching to address landscape experience.

Expression of an experiential perspective

A further subsection looks at the expression of landscape experience, mostly addressed through Chris Tilley's ideas, and for the most part with reference to the written language.

Drawing and *seeing well*

Finally, theory on drawing practice, Betty Edward's and John Torreano, link drawing with perception. Edward's theory on *drawing with the right hand side of the brain* sets out drawing as an activity that stimulates perception, by actively engaging with shapes, and how the whole relates to its parts or, *Gestalt*. Torreano's approach has similarities, but significantly he describes how drawing

helps us *translate* three-dimensional experience into two-dimensional shapes, as images, and back again. Edwards' and Torreanos' practical drawing exercises have proofed a method for learning to draw by accessing *an artist's perception,* or *'way of seeing'*, as a composite skill achievable by all.

The experience of weather and influence of temporal qualities on perception

The final brief section considers the experience of weather and how temporal qualities affect our perception. The depiction of atmospheric affects is looked at within the next main section, Field Sketching.

The following provides some background and definition on areas of theory referred to in the literature review.

Useful definitions and background: *phenomenology* and perception

Martin Heidegger (1889-1976) was a German philosopher, arguably the most significant of the Twentieth Century, whose work underpins the *phenomenological approaches* referred to in this thesis, developed by: Norberg-Schulz (1984), Tilley (1994), and Ingold (2007d). His defining work, Being and Time (1962), translated into English by Macquarrie and Robinson, was originally published in 1927.

Maurice Merleu-Ponty (1908-1961) was a French phenomenological philosopher influenced by Karl Marx and Martin Heidegger, and associated with Jean-Paul Sartre and Simone de Beauvoir. He set out that perception has a fundamental role in understanding and engaging with the world. Working with psychology, he has been important in the cross over between phenomenology and psychology, and his defining work, Phenomenology of Perception, (1962) is important to Ingold (2007d) and Tilley (2004). Other work relevant to the approaches referenced by this thesis include the essay Eye and Mind. (1964)

Pierre Bourdieu (1930-2002) was a French socialist, anthropologist and philosopher. His work emphasises the role of practice and embodiment in social dynamics. Influenced by Merleu-Ponty, Wittgenstein, and Bachelard, he developed a Theory of Practice: Bourdieu's term for sociology of culture, working through theory, which is grounded in everyday-life. Bourdieu's work has been influential to the following, referred to in this thesis: Ingold (2000) and the approach to the Leskernick project, Bender, Hamilton and Tilley (2007).

James J. Gibson (1904-1979) was an American psychologist, renowned for his work in visual perception. His defining works were The Perception of the Visual World, published in 1950, and The Ecological Approach to Visual Perception (1979). Gibson's experimental work pioneered his idea of *'affordances'*: that an environment provides opportunities for actions. This underpinned The Theory of Affordances, which has influenced the approaches of Tiiley (2004), Ingold (2007d), and Heft (2010), referred to in this thesis. He termed the new approach the Environmental Psychology, which overlaps with Environmental Psychology, but takes a more philosophical approach.

Definitions of a *phenomenological approach*, and phenomenology. (Tilley, 1994, p.10) *'The key issue in any phenomenological approach is the manner in which people experience and understand the world. Phenomenology involves the understanding and description of things as they are experienced by a subject. It is about the relationship between Being and Being-in-the-world. .....people objectify the world by setting themselves apart from it. This results in the creation of a gap, a distance in space. To be human is both to create this distance between the self and that which is beyond and to attempt to bridge this distance through a variety of means – through perception (seeing, hearing, touching), bodily actions and movements, and intentionality, emotion and awareness residing in systems of belief and decision-making, remembrance and evaluation.'*

Post processual archaeology is a theoretical approach, which promotes an interpretative approach, which does not prescribe rigid methodologies and focusing on *reflexivity*. See Inset Box: 2.1. The main proponent is Ian Hodder, but this is related to the *phenomenological approach.*

Phenomenological or *experiential archaeology* uses sensory experiences to view and interpret archaeological sites and landscapes. Tilley's A Phenomenology of Landscape (1994) formalised this idea and, of great significance to this thesis, stated that investigators should be sensually engaged with the landscape they study.

Some concepts of the primitive mind (Tilley, 2004, p.19-23), useful in consideration of alternative ways that people structure thought, which can be applied to perception. Animistic and anthropomorphic systems of thought, some key ideas:

- Inanimate natural and made objects (trees, stones, artefacts, mountains, monuments) are regarded as being alive and reciprocal participation occurs between people, things, and places.
- Totemic and animistic thought: *'Different modes by which people conceive of their participation in the non-human world.'*
- *Metaphorical logic is analogic and maps one thing onto another*, and simile *tells us one thing is like another.*

Insert box 2.1: Useful background and definitions: *phenomenology* and perception

Drawing as craft and expression

Early years development: learning and drawing & the craft of drawing, and role of practice

Understanding of learning and early development is considered in the context of how the relevance of drawing for children applies also to adults, but has arguably been less well studied. Drawing as a craft is also looked at to contextualise it as a skill, which develops through practice and the speciality of *hand action.* Other materials and the techniques of mark making are explored with reference to watercolours. Whilst the range of expressive materials and techniques is extensive, this focus allows greatest parallel with the work covered by this thesis through *reflection-on-practice*.

Expression of the experience of landscape character and visual qualities

The works of Leonardo da Vinci, Ruskin, Donald Wilkinson, and Winifred Nicholson are looked at in the context of the expression of the experience of landscape character and visual qualities. The role of viewpoints within composition, which could rightly be considered here, has been included in the previous section. However, although the experience of the weather and the influence of temporal qualities on perception, were treated in this former section, artistic portrayal of the weather is covered in this section. It was a concern of all the artists featured: of special significance, not just as components of the visual phenomena of landscapes, but on how we engage with them emotionally and spiritually.

Materials and the techniques of mark making

Tim Ingold (2007a, 2007b, 2007c) takes a more academic view of hand-generated notation generally, and with some limited specific coverage of drawing. This provides a useful context in considering the materials, craft, and expressive gesture of sketching.

Movement and gesture, the quality of line

Gibson's *Theory of Affordances*, and the importance of movement and action in this model of perception is explored earlier. However, the link is not made explicitly between these areas of Ingold's work, which can be combined with great interest for this section.

Field sketching

Sketching and the sketchbook

The use of sketchbooks by architects, landscape architects and other designers introduces this section. For these practitioners sketching is enjoyed as a more artistic aspect of their lives and work; sometimes a private indulgence, and at other times a powerful means of expressing and sharing ideas. The sketchbook is a most obviously visual tool that can capture the whole experience of being in a place.

Technical aspects of field notes and sketching for *non-artist/designers*

Literature is considered for technical aspects of field notes, and sketching for non-artist / designers. This is in part to extend consideration of the scope of practice, which as set out in Chapter 1, evolved out of diverse and pragmatic purposes as much as through artistic purposes, and in part to consider the more technical and less expressive aspects of the activity.

Landscape drawing, analysis and design

Reflection-on-action

The introductory section looks at the process of design from the designer's perspective: the *doing* of design. Donald Schön's ideas about reflective practice are reviewed, and specifically his analysis of the structure of *reflection-in-action.* Schön's work was referred to in Chapter 2, where the generalities of a *reflective* approach and the specific background and principles to the method of this research, *reflection-on-action* were set out. Here, the model he proposes to understand *reflection-in-action* is applied to landscape design.

Imaging and design: eidetic images

The *eidetic image,* as conceptualised by Corner is introduced, as significant to the designer as a stimulant of creativity. Heft's interpretation of Gibson's *Affordances*, connects the *needs* of the designer, with the *possibilities* an environment offers.

The sketch and drawing as an analytical tool / technique

The *seeking nature* of sketching, whereby the drawing articulates the essential qualities of line or pattern make it a good analytical activity. The development of design theory has evolved alongside *imageability:* the principal is that the development of ideas is be limited by the language available. The use of the sketch to analyse and demonstrate analytical thinking in spatial design is considered. Marc Treib makes the link between drawing and thinking, bringing together a range of contemopary practitioners around the subject. Theoretical models have been developed to analyse the structure and character of space, notably by Kevin Lynch and Gordon Cullen in urban design, and Cathy Dee in landscape architecture. The related idea of *serial vision* developed as a component of these models. The analytical sketch is considered as a visual tool for analysis and presentation of ideas in this context.

Generating form and *landscape fit*

The application of field sketching and associated visualisation is considered in the context of design where achieving *landscape-fit,* is the aim. Within the scope of landscape design this occupies only a proportion of landscape architectural practice. (See Definitions: an area of practice often referreed to as landscape planning) However within situations where conservation and enhancement are the management objectives, in whole or part, analysis of the existing character is fundamental to developing a design vocabulary. Such situations reflect the focus of this research, with the selection of *reflection-on-practice* within protected landscapes. A range of siting and design guidance, as well as the use of a landscape character based approach, tends to underpin these areas of work in today's practice. Aspects of practice guidance and architectural and design theory are reviewed in terms of generating form that achieves *landscape-fit.* These are: the ideas around *figure-ground* explored by various theorists; Norberg-Schultz's qualitative *phenomenology* of architecture, space and character; and work by Sennett and Lawson on the creative process and generation of form.

Landscape representation

Visual communication

Visual communication is introduced through the traditional use of imagery and the sketch as the basis to both develop ideas about and visualise landscape change, from Repton to contemporary drawing practitioners. Marc Treib's essential references, take cross sections across contemporary drawing and landscape representation practice. Aspects of how visual communication can stimulate internal dialogues for designers, as well as the work of community designers in developing graphic techniques that work in public participation, are considered.

Interpretation: a philosophical approach

Interpretation is considered from a more philosophical perspective, as fundamental in the act of description. Corner and Ingold have both considered the fundamentally interpretive aspects of landscape representation and imaging more generally.

Landscape representation

Landscape representation generally concerns the representation, or *picturing* of existing landscapes as a *view perspective*, against which scenarios of change can be compared. Issues of *realistic* versus *interpretive* visualisation are discussed: the apparent drive towards a representation that appears *as-if-real* to our perception, the ethical questions that surround this such as issues of authenticity, and the fundamental validity of it as an aim.

Alternative representations of landscape: *ways of seeing*

The works of James Corner and associates are principle references to consider alternative representations of landscapes, as *ways of seeing.* Corner's *eidetic image,* introduced as a tool for designers, is explored more thoroughly. Working

from the premise that the way we represent and image of landscapes determines how we are able to think about them and act in them, a range of graphic devices are explored as sub-themes: the overview and *whole landscape image*, mapping, diagrams and orthography, and taking multiple perspectives in creating *experiential imagery.* In this latter subsection, the break away from more standard *view perspectives* is also looked at through the work of artists, who offer a *laboratory of experimentation* in this respect

SECTION TWO

Reflective practice: background and method

Section Two presents the researcher's practice, outlining a range of different applications and aspects of field sketching and visualisation. There are seven practice case studies used as a basis of reflective practice and a *Grounded Theory* method of study, and three workshop sessions, which look in a more general sense at acquiring basic sketching and visualisation skills. The methodology for reflection on practice and interpretation of practice principles is set out.

Contents

Chapter 4 Acquiring skills: workshop outlines

- Tutorial for archaeological fieldwork
- Sketching workshops: basic techniques for non-artists
- Visualisation skills for geologists
- Workshop conclusions
- *How and why children draw – and why don't adults?*

Chapter 5 Methodology for preparing, sorting, and analysing data

- Undertaking practice
- Preparing practice case studies, for analysis, and *data collection*
- Collation of results, *sorting tasks*
- Interpreting the results, and developing integrated principles from practice

Preamble

In the late nineteen nineties I spent two years working with art and landscape in Italy. This period was supported through scholarship, based initially at The British School at Rome (BSR), and later looking at transhumance routes through central and southern Italy. After several years working as a landscape architect, this period of personal and artistic development consolidated an approach to my work that was visual, but remained rooted in spatial analysis and *landscape character assessment*, or appreciation of landscape character. Travel across and movement through landscapes to explore how these are experienced first hand and *in the field* has remained a fascination. Travelling with a sketchbook was a way to step back and hide from the social discomforts and confrontations of travel, whilst stepping forwards for a good look. Of significance to this thesis, my experiences in Italy led me to understand that the sketching I practised was a form of research, and the sketches useful communications.

Firstly at the BSR, a community curiously divided in to *the artists* and *the scholars*, I was immediately drawn in to conversations with the scholars, particularly archaeologists and ancient historians. Although working visually, many of my own concerns had great synchronicity with theirs, an interest in the layers of topography and cultural development of the wider landscape. The scholars went out and looked at sites. This tied in with my own work. However this was my first encounter with academic research and I didn't have the frame of reference to articulate what I did as research. Comfortable as a designer, I brought this perspective to the observations of ancient sites. Most notably sketches that I made on a visit to Pompeii were presented by the then Director (of the BSR and Pompeii Project), Andrew Wallace-Hadrill at a conference.

Walking and sketching around Pompeii, I noticed that a particular flat-topped mountain, some distance from the site, was used as a focus to the axis of some

of the streets, and that this set up shifts of angle away from the orthogonal *cardo maximus* grid. This visual relationship was echoed at the more detail scale of courtyards, whose axes were centred on the mountain summit and where wall height and dimensions of the spaces maintained views out. I remarked this as exceptional, as a design intention, carried across the scales of the town, through very precise setting out. For Wallace-Hadrill these simple sketch observations provided an explanation and demonstration of the puzzling irregularities of the town grid.

In a more general sense, archaeologists were beginning to look up and out from the confines of the site, to contextualise history in a wider landscape setting. Within the emerging area of phenomenology in archaeology, Christopher Tilley, Barbara Bender and Sue Hamilton were working collaboratively with artists on a project at Leskernick on Bodmin Moor. BSR colleagues introduced me to this work through then current publications in World Archaeology (Bender, Hamilton and Tilley 1993), and I became more conscious of how my own approach could be applied to interpreting landscape scale historic patterns and features. Now at writing up stage the published account of the Leskernick (Bender, Hamilton and Tilley, 2007) has become important again as an example of published reflective practice that considers at the experience of fieldwork.

Funding for a painting scholarship[1] gave me an opportunity to pursue interpreting a large scale historic landscape; supporting a study of the ancient and long distance vertical transhumance routes that formed a network spanning approximately 250km length by up to100km wide area between the high Abruzzi mountains, and the plains of Puglia. The required output from the scholarship was a solo exhibition of paintings. The constraints of the journey restricted my work to sketchbooks, but over the five months travel I made numerous and diverse studies, all *in the field*. These provided my sponsor with an exhibition,

[1] Alastair Salvesen Travel and Painting Scholarship, 1999.

and me with a period of sustained artistic study and output from the landscape. Struggling to explain myself to a fellow guest at one evening's accommodation, after a frustrating partial English Italian interchange he exclaimed, *'ahh – what you are doing is a research; yes, yes, a research!'*

In professional practise over the subsequent ten years, it has often been such feedback that has helped me to understand and define the roles and contributions of field sketching and imagery developed from it. Working at extremes in Glen Dibidil on Rum, sketching to show the structural landscape lines that determine the setting of the bothy, SNH's ecologist and long time expert on the National Nature Reserve, Sandy Payne, said he had never 'got landscape before'. Sketching on site and sharing the thinking was a break through moment. In reflection on the three artists used, and their different approaches to the mountain scenery for the Flora of the Fells Landscape Guides, the commissioner Martin Varley said, *'yours was a more interpretive approach'*. Sent to visit the forest managers of Forestry Commission estates, as part of a project looking at raising awareness about deadwood in forests and woodlands, the purpose to undertake *visual survey*, became in depth interviews and research. This exchange raised awareness of deadwood management in its own right, and even without the Life in the Deadwood publication.

Conversations and correspondence with acquaintances and friendships over the years has also been a rich vein of self-awareness and understanding about *what it is I do*. David Austin, from the University of Wales referred to my 'mappy' art:

> *'....to my eye this strikes right back to the old "topographia" and drawing of place before the separation between the rationalist vertical map and the idealist landscape painting.'* (Austin, D, personal communication, 2003)

John Evans, from Cardiff University, whom I was fortunate to get to know in the years shortly before his death, shared my interest in transhumance, but *'from the dog's perspective'*. Pursuing research can be an isolating experience. During one period of doubt, it was a letter and photocopied drawings of *tells* (historic settlement mounds) from John that encouraged me to carry on with this thesis. He had been interested in my visual approach, and his earlier post card indicated his enthusiasm to have a go:

> *'Many thanks for your letter and sending your book about transhumance – that's really nice to have and I'm using it as inspiration while we are roaming around the Preseli Hills for a week. I'm wondering whether to try out some of your ideas only it's difficult to stop with the dogs for long!'* (Evans, J, personal communication, summer 2003)

The tell drawings were really striking, the drawings in themselves, but also the commentary John had included, his reflection on how he had found doing them useful and what they showed. Although this dialogue didn't continue, John probably knew then, what I only appreciated in retrospect, that it is communication and sharing of ideas that matters, where they can grow, and be refined and applied. His letter was an example of what I hope to achieve in reflecting on practice..... *this is what I did, and this is why I think that was important.*

A keen letter correspondent, my way in to writing the selected case studies was through a conversational approach akin to personal communications.

Next page Fig, 3.1: Tell drawings, John Evans, letter, August 2003

15 Fairleigh Rd - Cardy - CF11 9JT -

24.8.1

Dear Janet - I've been looking again at your drawings & paintings of translucence town & countryside in Italy. I've been trying to draw reconstructions of tells from South-east Europe and Turkey because I am interested in what these mounds mean. Some of them are huge - covering several hectares and upto 150m high in Iraq - and some are much smaller. Some were cities, some palisaded villages, some were citadels with only a few houses, and some were hardly mounds at all with a loose collection of houses - perhaps an established farm. Like you ideas with the town & cities of Italy in the translucence area forming as an opposition or at least an engagement with translucence, I think tells came into being as a means of creating family or larger community identity. Whether this was a purposeful or directed business for the start - before the foundation of the town or tell - is difficult to say - it really a question of how much are you a human-awareness I suppose.

Anyway - I'd just like to say how inspirational your work is. I found doing the tell drawings very difficult but at the same time it taught me a bit about perspective. I wonder if people who built the tells were using the vertical visuality to explore perspective as well, a large-scale art, and curious at that with all those boxes. The patterns of squares & lines within the squares in the Greek houses are taken from painted realistic models.

I hope you are enjoying this dry & hot August. What is your latest project? If you have a catalogue or photographs of your paintings that you are selling I would be interested - really!

All the best.

John (Evans).

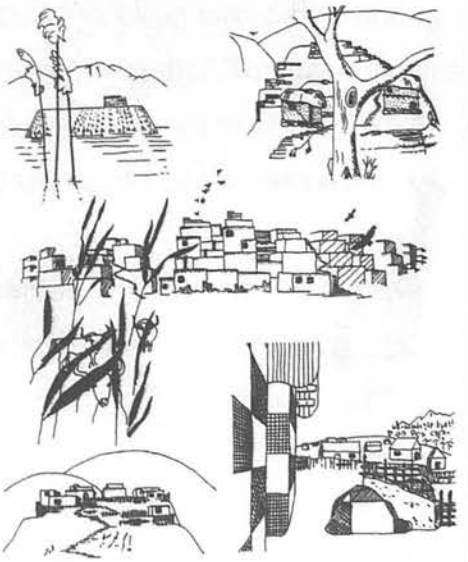
Top left: A deserted tell on a flooded floodplain; e.g. Platcia Magoula Zarkon in Thessaly.

Top right: A citadel, yet overlooked by higher hills quite close. On the foothills of a valley with substantial use of stone; early tell deposits of ash and mud, etc. exposed bottom right. Eg. Sarkla, Thessaly.

Middle: A significant town or city. It would be easy to see & understand how the perspective of the identical buildings changed as one's eye moved towards the edges of the mound. E.g. Çatal Höyük, Anatolia.

Bottom left: A fortified or palisaded village at the edge of a valley in foothills. e.g. Ovcarovo, N.-E. Hungary. Actually Ovcarovo is on a flood-plain & was incorrectly flooded —

Bott. right: Loose collection of buildings — village or farm — comprising a low mound and fences. Ruined remains of bldg, bott. st., with layered painted plaster and daub against wattle and posts. Hills with oak then (higher up) juniper. E.g. Nea Nicomedia, Greek Macedonia.



Chapter 3 Case Study outlines

Introduction

Selection of case study practice

The practice has been selected from a period of diverse activities as a landscape architect, an illustrator, an artist, and occasional teacher. Projects arose through commission, as part of regular employment, or through personal interest.

The case studies were developed for this thesis as reflections on what I did, the role of sketching and contribution of field sketches within the process. Based on recollection, the language used is intentionally direct and conversational; these are observations and insights, as well as can be recalled, as they occurred. Serving diverse external briefs, the projects have been linked by working practices of field sketching, and development of visuals. The case studies are presented in full in Appendices 1 - 7. They are referred to and drawn on throughout the thesis, with further interpretations and discussions.

In Chapter 3 case study outlines are presented. For each project these briefly describe: the background, activities undertaken, the key points demonstrated, and the roles of sketching and visualisation. The original practice observations, and summary tables are included in Appendices 8 and 9. These are formal observations set out as *primary data*, for further collation and interpretation through the thesis.

All the case studies consider large scale, or wider landscapes, rather than more localised site scales. They are set in rural contexts, of diverse landscape character including, mountain scenery, sea lochs and islands, historic landscapes, forest landscapes and settled farmland. For the most part the project areas are within landscapes protected through designation; National Parks, National Scenic Areas (NSA), Areas of Outstanding Natural Beauty (AONB), Forest Parks. They are valued for their scenery, and public amenity, natural and cultural heritage, and other *special qualities*, and are generally sensitive to landscape change. This represents the researcher's practice experience.

Notable omissions include urban areas, lowland landscapes, landscapes characterised by industrialisation or other modern developments, such as highways, pylons, and windfarms. There are no studies for detailed site assessment or visualisation that might, for example, be undertaken for detailed design.

The following table summarises the attributes of each case study. It shows the basis of the selection, ie. to provide a spread of project types and landscape contexts. As the case studies were the primary source material drawn on for *experimentation*, or observation, sufficient number were reviewed to ensure confidence in the observations, in terms of both size of sample and representative quality.

The focus of case studies is on protected landscapes, in part reflecting available experience, and in part the need for these areas to articulate the special landscape and visual qualities to help guide appropriate change. *Scenery* is a widely understood and used concept that underpins these areas' popularity and value. Field sketching also has a historic resonance in many of the landscapes, where *picturesque qualities* were and continue to be celebrated.

Case Study Attributes	Selected case studies						
	Deadwood	Rum	Iuvanum	Loch Torridon	Flora of the Fells	Loch Ruel	Dales Scenery
Project Types							
Illustration commission	**X**	x		**X**	**X**		
Landscape architecture		**X**				**X**	**X**
Personal art work							x
Archaeological project			**X**				
Landscape contexts							
Mountains and uplands	x	**X**	**X**	**X**	**X**		x
Farmland			x				**X**
Settlements (all rural)			**X**	x		x	**X**
Woodlands and forests	**X**	x				x	
Coastal		**X**		**X**		**X**	
Protected landscapes							
National Park	x				**X**		**X**
NSA / AONB		**X**		**X**	**X**	**X**	
Forest Park	x						

Table 3.1: Summary table, criteria for the selection of case studies

X, Key quality / main purpose, and
x Component feature / not main purpose

Case study outlines

Case Study 1, Life in the Deadwood publication

Background

This was a project to promote the value of retaining dead wood in forests to forest managers and operators, undertaken for the Forestry Commission. The output was a guidance leaflet and poster, themed around the main different *forest landscapes* throughout the UK, presented individually with 'how to manage' guidance and as a fold out composite image. The researcher was involved in site-based visual and interview research of the constituent *deadwood stories*, with forestry managers and specialists in representative forests.

Key points demonstrated and lessons learnt

The fieldwork was a series of one and two days trips in the selected forest areas over a three weeks period. These provided examples of a variety of site work whilst accompanied / meeting others, and working alone: quick biro notations and sketches, more careful pencil studies, colour wash studies, and photographs. The site work shows research and information gathering, with the field sketch and associated notations acting as mediums to aid exchange, through interaction with others, and a more conscious dialogue with self. Later studio work shows the process of composing rough visuals from diverse source information, and developing field sketches in to a finished illustration, which communicates complex information.

Roles of sketching and visualisation

Field sketching was used to undertake a visual research and gather technical information, describing forest and woodland landscape quality across the landscape scales: wider landscape context of forest landscapes, to local tree stands, to individual trees as features and deadwood habitats. Visualisation of *typical* or *generic landscapes* was developed from the specific and observational sketches to show general principles covering a range of circumstances, for guidance purposes. Complex *stories* and messages were composed in composite images, in an attractive and celebratory way. The interpretive objectives were to engage others with forest landscapes: primarily to influence behaviour of those managing the forests, encouraging beneficial actions to conserve and enhance deadwood, and also secondarily to raise awareness of these actions to visitors.

Sample images

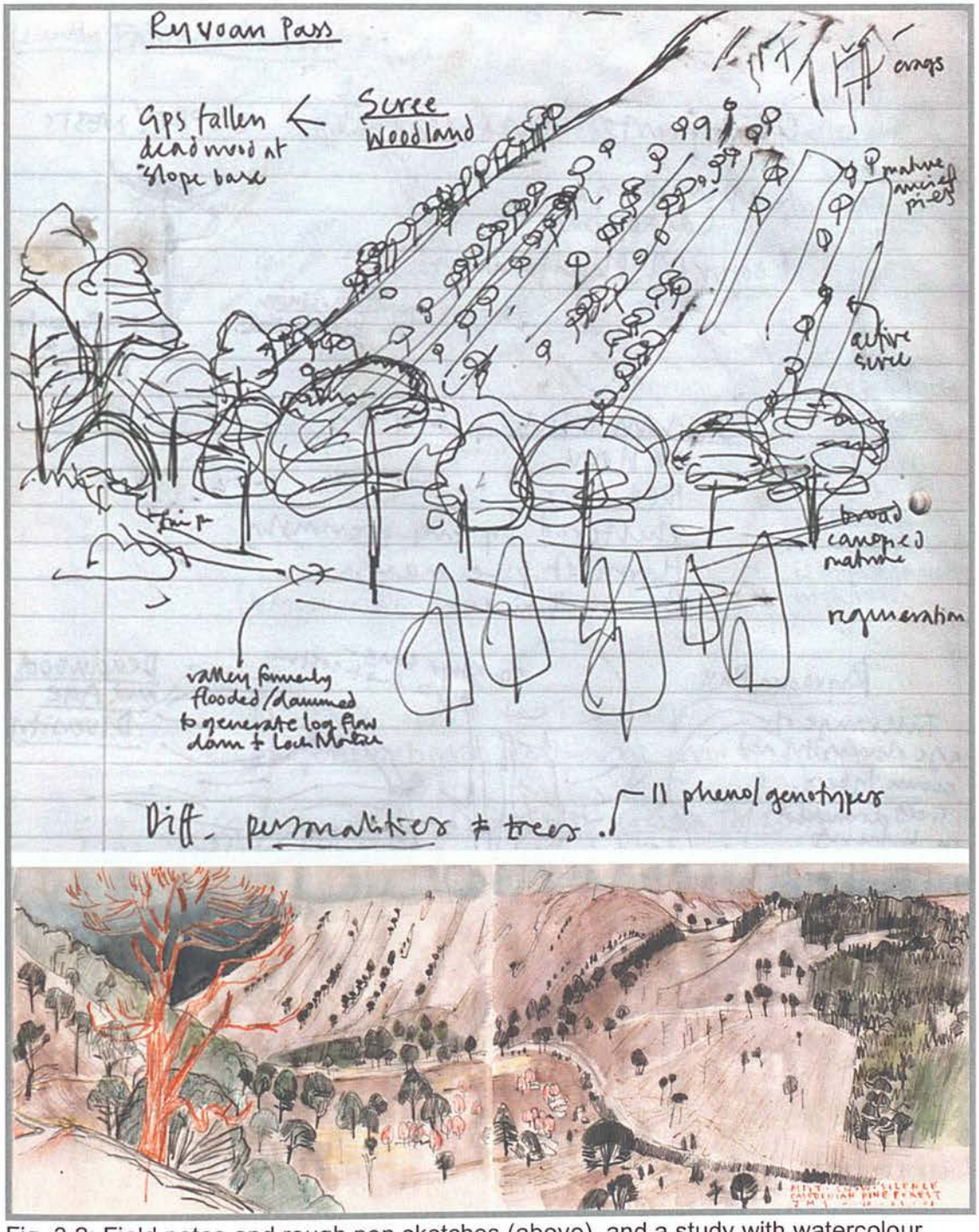
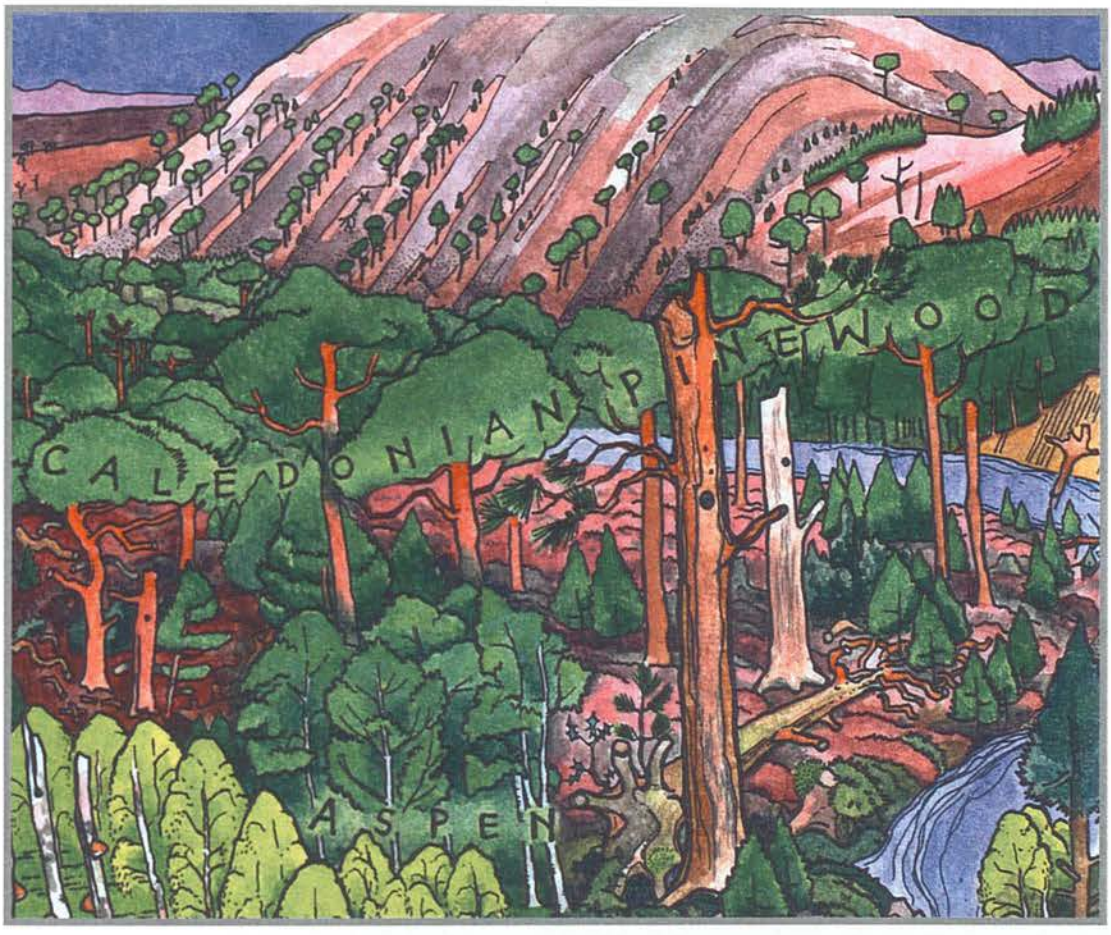


Fig. 3.2: Field notes and rough pen sketches (above), and a study with watercolour wash: two contrasting types of field notation from the Ryvoan Pass, Glenmore Forest.



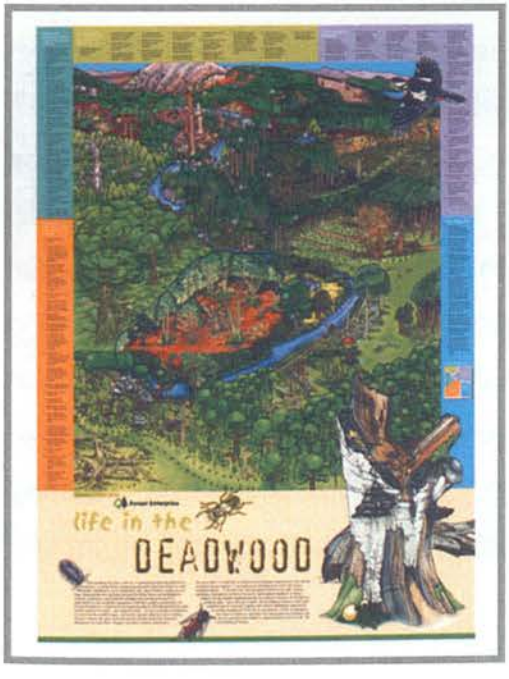


Fig. 3.3: Final illustration in pen and ink, with watercolour wash.

Fig. 3.4: Composite poster image brings together a range of landscape scales, diverse forest landscapes, stands of different tree types, individual trees, and their constituent habitats.

Case Study 2, The Island of Rum woodland proposals

Background

This was a project to restore habitats through establishment of native woodlands on the Island of Rum, undertaken for Scottish Natural Heritage (SNH), who own and manage the island, as one of the network of National Nature Reserves. The outputs of the project were an Environmental Statement (ES) and woodland proposals at broad and detail scale. The researcher participated in a multi-disciplinary team preparing the ES, where she worked with the SNH landscape officer to prepare the landscape related aspects: the LVIA, with special appreciation of *wildness* and scenic qualities, an island wide scope for woodland, based on broad landscape opportunities and sensitivities, woodland siting and design principles, and integrated woodland designs on an area-by-area basis, reflecting the various capacities and priorities of different environmental disciplines. The researcher also visualised scenarios of landscape change throughout process, to test ideas with other specialists and for community consultation.

Key points demonstrated and lessons learnt

Several prolonged periods of fieldwork were undertaken in order to access all areas of the Island of Rum, involving long journeys to get to Rum, and within the island accessing remote locations. The period and stages of the project developed a deep understanding of and familiarity with the landscape, and the community. A series of pencil studies were made, as well as site notes and a photographic survey whilst accompanied / meeting others, and working alone, taking in pre-determined and discovered fixed viewpoints. Site notes were generally processed at the end of each day, particularly where adverse weather had made notation necessarily rapid or damaged information.

The project spans a wide range of work, landscape assessment, design, and visualisation, providing the most thorough example in this thesis, of both field sketching and the development of field sketches. It demonstrates how field sketches have a versatility of application and are used to carry out visual research, and directly as the graphical basis for design decisions and visualisation of scenarios of potential landscape change. The site work shows research and gathering of information, with the field sketch and associated notation acting as mediums to aid exchange, through interaction with others, and a more conscious dialogue with self. The field sketch as a sketch visual engages others with the design decisions.

Roles of sketching and visualisation

The field sketching was used to describe landscape quality: in particular the topographic structure; coastal edge, mountain forms and glen voids, slope landforms, scale, distance and space. The linear drawings were useful in demonstrating potential *landscape-fit*: developing 'templates' for the landscape structures that can be used to generate and test design form. As such, the sketches provide a seamless and transparent transition from landscape assessment, to design thinking, to proposals. They provide a bridge between specific observations and general principles that cover a range of circumstances, for guidance purposes.

Sample images

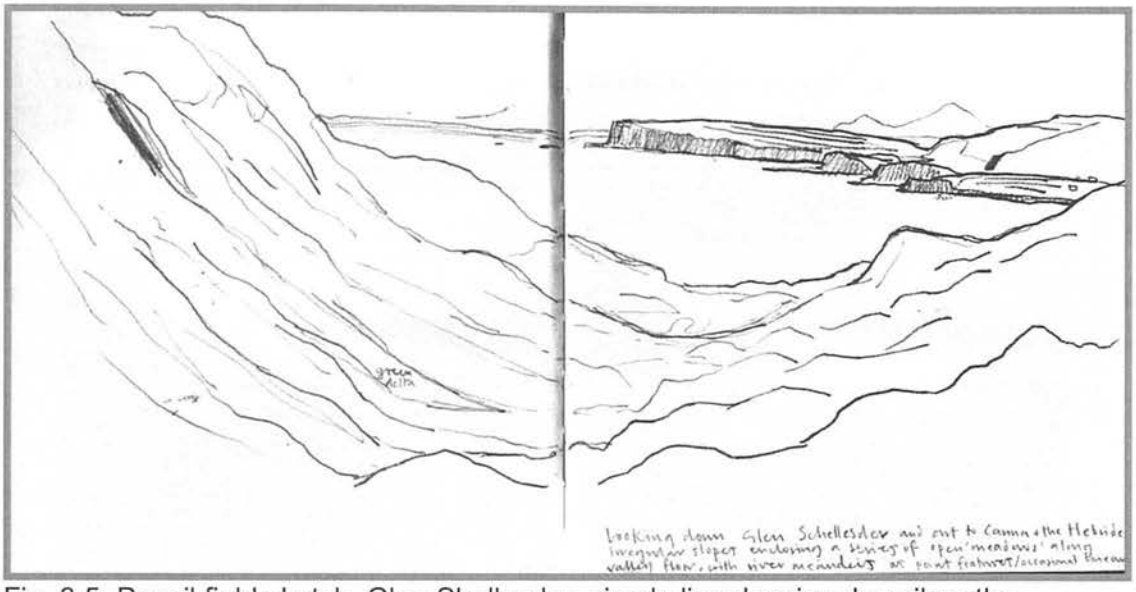


Fig. 3.5: Pencil field sketch, Glen Shellesder: simple line drawing describes the distinctive hummocky moraine landforms that characterise the glen slopes and floor.

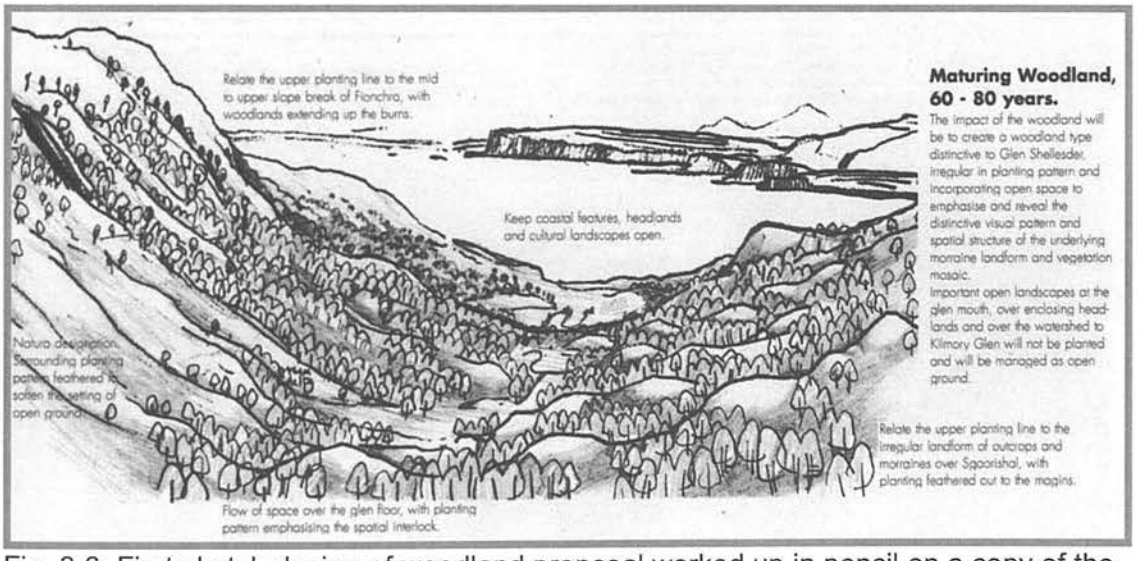


Fig. 3.6: First sketch design of woodland proposal worked up in pencil on a copy of the original field sketch as a base. Annotations, inserted in a page layout program, describe the application of design principles.

This stage of visualisation was used in discussions with other specialists and for community consultations.

The scale that trees appear across and through the glen landscape was checked, by modelling scale reference points in a computer generated visual.

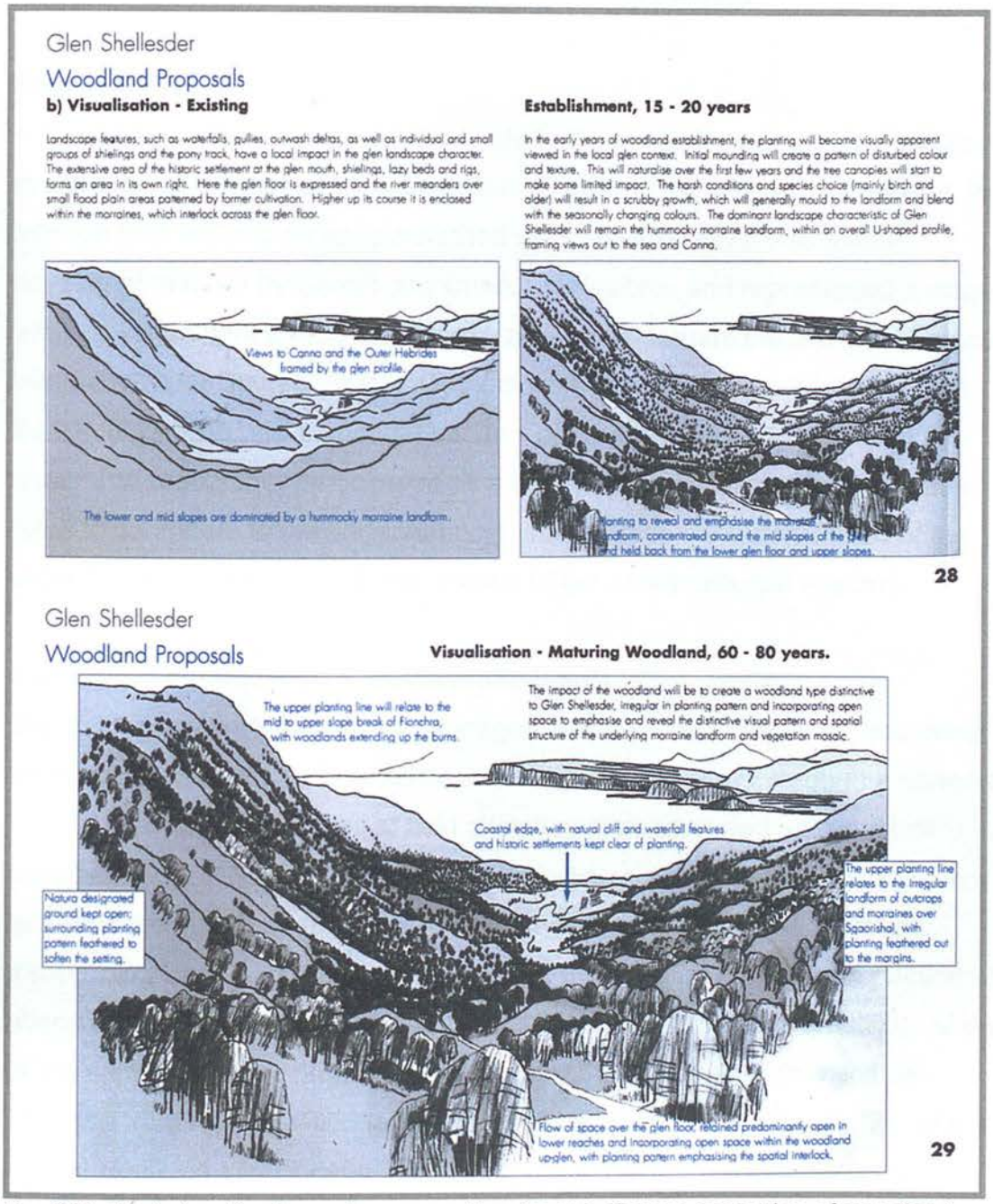


Fig. 3.7: Final visualisations of proposed landscape change scenarios of woodland development: worked up in pencil using the field sketch as a base, amended to incorporate consultation comments and correct the scale of trees.

Limited tonal differentiation added to enhance legibility of topography and recession across the landscape using Paint bucket in Photoshop.

Case Study 3, Iuvanum study of territories and identity

Background

This was an archaeological project to study the territories around the Roman *municipum* of Iuvanum, the highest Roman town in the Abruzzo mountains, Italy, through field walking recently ploughed land. The research was jointly developed and run by Cardiff and Chieti Universities, and represented a stage within a series of research considering ancient settlement pattern and character within the wider Sangro Valley. Outputs were the results and interpretations from field walking and measured surveys of selected structures found in the area. The researcher participated as a landscape architect and artist, with a remit to contribute to the understanding, interpretation and description of the wider landscape character in the context of the archaeological research.

Key points demonstrated and lessons learnt

The fieldwork involved frequent prolonged field trips, working alone, exploring the historic town site, its immediate and wider surroundings, through a series of pre-set viewpoints. A series of field sketches were executed: quick pencil sketches, pencil studies, expressive watercolour wash and drawing, and more analytical colour wash studies. The sketches show an evolving familiarity through exploration, dwelling, and drawing, with lengthy periods of reflection and absorption, arriving at essential visual qualities and spatial relationships. Many of the same views are portrayed sequentially through time, with a shift in attention from representational to more abstract concerns. Contributing with a double remit, as a landscape architect undertaking landscape character assessment, visual and spatial analysis, but within an artistic approach, provided both structure and freedom.

Roles of sketching

Sketching of wide panoramas was used to describe landscape character of: the topographic structure of mountains, plateaus and valleys; and the mosaics of woodland, farmland, and settlement. Closer studies were made of the setting of villages and dispersed settlement, relict settlement and ancient sites in the landscape. The spatial structure and formal visual qualities of the landscape were uncovered, which in some way *recovered* a persistent framework that underpins cultural responses.

Sample images

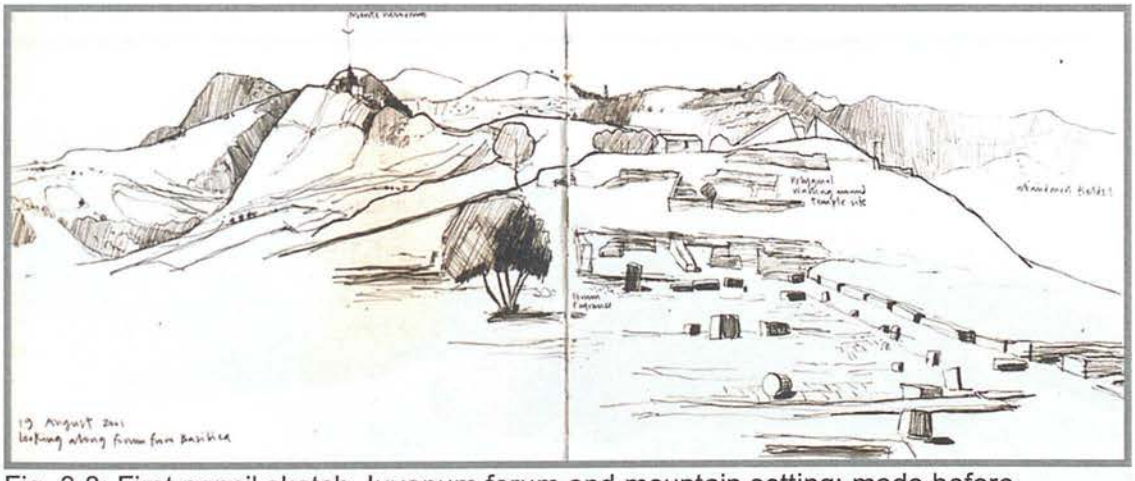


Fig. 3.8: First pencil sketch, Iuvanum forum and mountain setting: made before exploration of the territories and understanding of spatial dimensions, this sketch has a poor sense of depth to the background, the mountains appearing as scenery 'flats'.

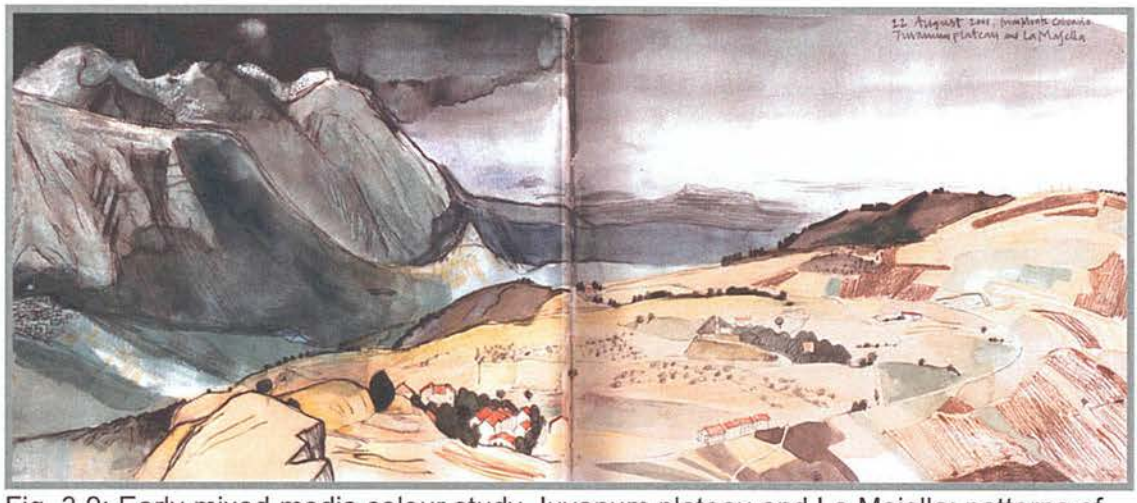


Fig. 3.9: Early mixed media colour study, Iuvanum plateau and La Majella: patterns of the topography, land cover, land use, settlement, and dramatic light and shadow dominates.

Fig. 3.10: Final colour wash sketch of Iuvanum plateau and La Majella: attention has shifted from surface detail to the fundamental structural components and their visual qualities.

Case Study 4, Loch Torridon interpretive leaflet

Background

This project was an interpretive leaflet developed by Scottish Natural Heritage, for Loch Torridon, the surrounding mountains and coast; an area of great conservation value for scenery and wildlife. The researcher was commissioned for an overview illustration to be used as a fold out image in the leaflet.

Key points demonstrated and lessons learnt

The fieldwork was focused during a single day, studying a number of distinct landscape character areas, and undertaking a series of quick pencil and colour wash sketches. The sketches are of interest in showing evolving familiarity through exploration, without lengthy intervening periods of reflection, or any interaction with others. They are therefore responsive to the direct experience of being in the place. The sparseness of the sketches and mark making emphasised the aspects of space, its large scale and form, which is both setting to, and sculpted by the dramatic mountains.

The sketches are presented in the case study to show the compositional aspects, in their entirety, and at size to show the nature of the mark making, in detail and with minimal manipulation through Photoshop.

Roles of sketching and visualisation

Sketches were used to describe landscape quality, the topographic structures of mountain forms and glen voids, scale, distance and space. The setting of isolated and dispersed groups of buildings in the landscape provided counterpoints that emphasised scale and juxtaposed cultural elements in the *wilder* landscapes.

Sample images

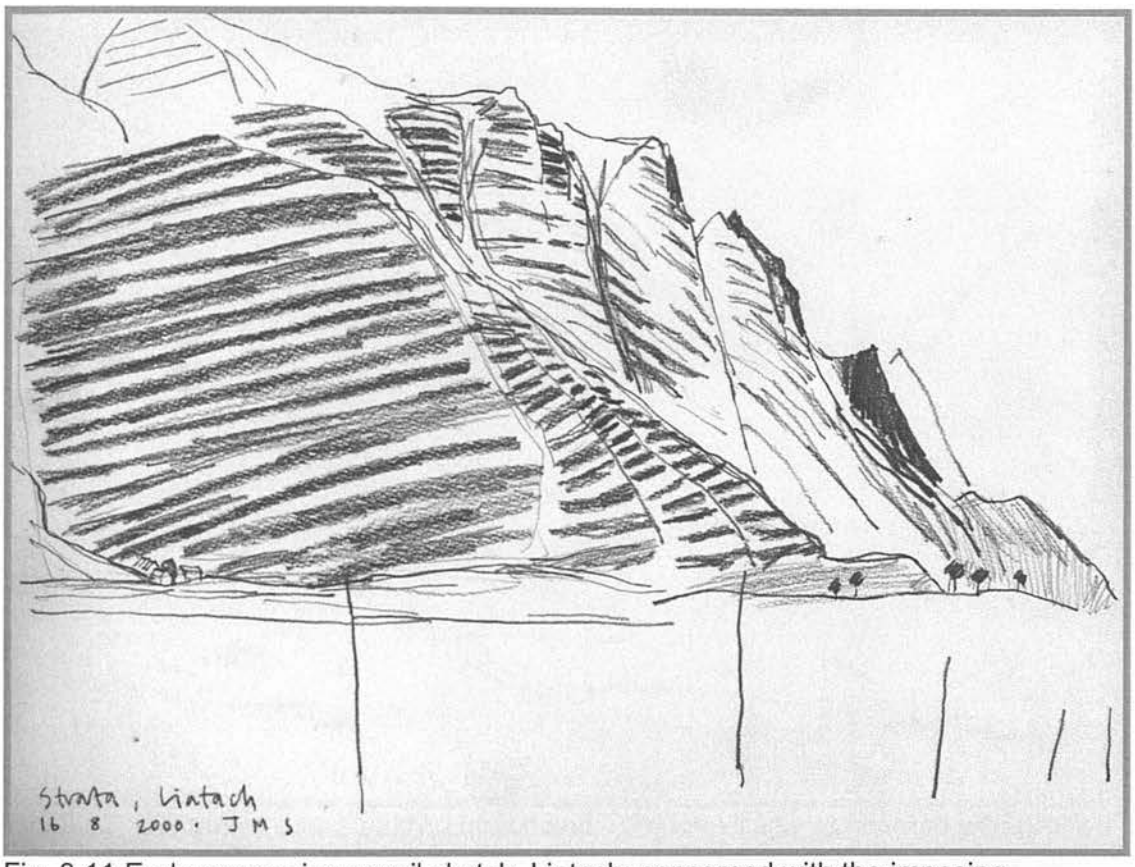


Fig. 3.11:Early expressive pencil sketch, Liatach: concerned with the imposing presence of the mountains, emphasized by the weight of the horizontal lines of the strata, their contrast with the spindly foreground fence posts, and the scale reference of the buildings.

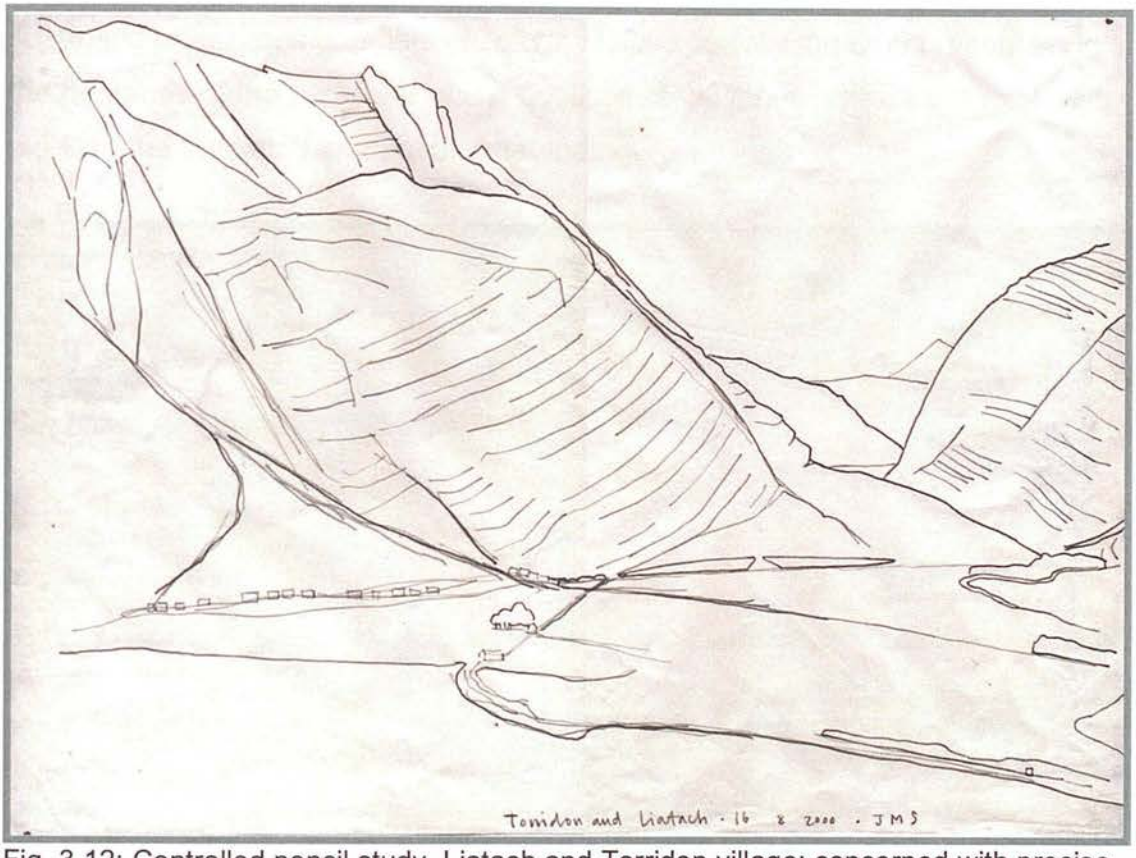


Fig. 3.12: Controlled pencil study, Liatach and Torridon village: concerned with precise observation and simple expression of the structural elements, primarily of topography, but also of land use and settlement pattern.

Fig. 3.13: Water-soluble pencil with watercolour wash, Kenmore: considered and sparse line work and a reduced colour palette dramatically applied create a sense of space and of mass.

Within the series of studies there is a shift between gestural marks and controlled ones, lines and flats of colour. These convey the direct response to the demands of the particular visual qualities of the landscape as it is explored, but also the unfolding internal understanding.

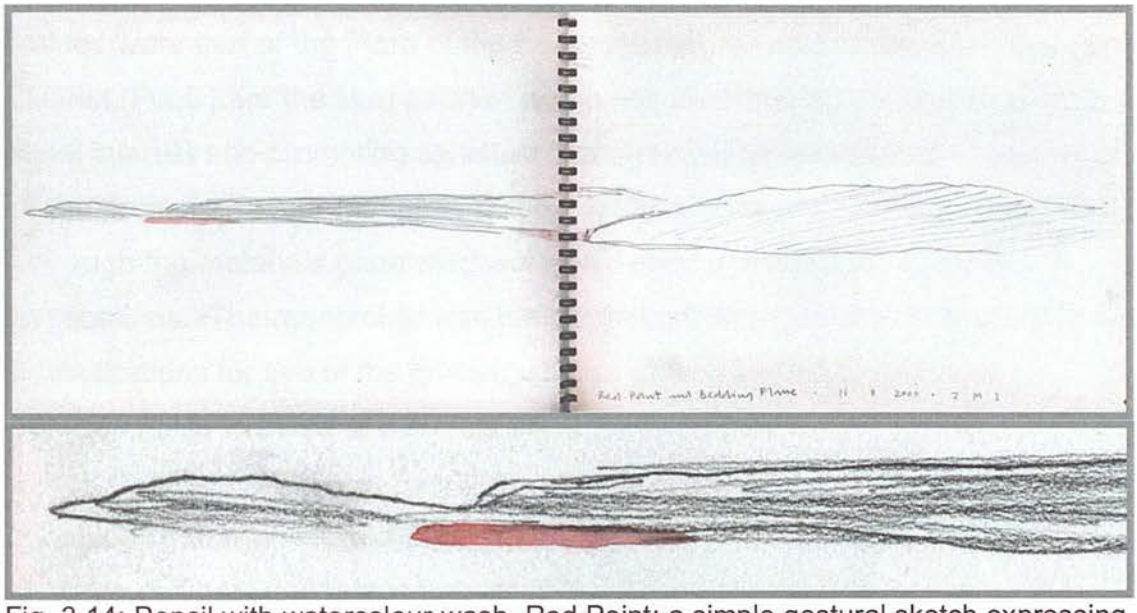


Fig. 3.14: Pencil with watercolour wash, Red Point: a simple gestural sketch expressing the landscape's singular visual quality.

Case Study 5, Flora of the Fells: interpreting Cumbria's mountain scenery

Background

This project was for the development of landscape guides for different examples of mountain scenery in the Lake and North Pennine Fells of Cumbria. The guides were part of the Flora of the Fells initiative, for whom Friends of the Lake District (FoLD) are the lead partner, which has the wider aim of interpreting the floral interest and promoting sensitive management of the uplands. The output of the project was four mountain guides, within the range of the FoLD activities, although the materials generated were also used in exhibitions and other publications. The researcher was commissioned as an artist to produce a range of illustrations for two of the guides, which included capturing for *iconic viewpoints,* considered to best represent the two areas.

Key points demonstrated and lessons learnt

A series of single day unaccompanied field trips were made to pre-selected viewpoints and viewing areas of mountain 'scenes'. Simple quick pencil and crayon sketches were undertaken to capture sequential views, as the landscape unfolds when moved through, and changes with the dynamic of light and weather conditions. It was discovered that iconic and classic views don't necessarily exist in reality, but are built up out of the broader experience of a place, informed by the shifting view as we move through a landscape, and by shifting light and shadow that highlight and obscure information. The process of developing composite images, which whilst appearing to be 'natural' views, are constructed from several perspectives that are manipulated through stages of re-drawing, was developed to deal with this experiential dimension of views.

Roles of sketching and visualisation

Sketching was used to describe landscape quality; the topographic structure of mountain forms and valley voids, slope landforms, scale, distance and space, and overlying land cover of vegetation mosaics.

Through visualisation, mountain scenery was interpreted and celebrated through: powerful pictorial compositions (composite / manipulated images); an expression of landscape character, and capturing essential visual and scenic qualities.

Sample images

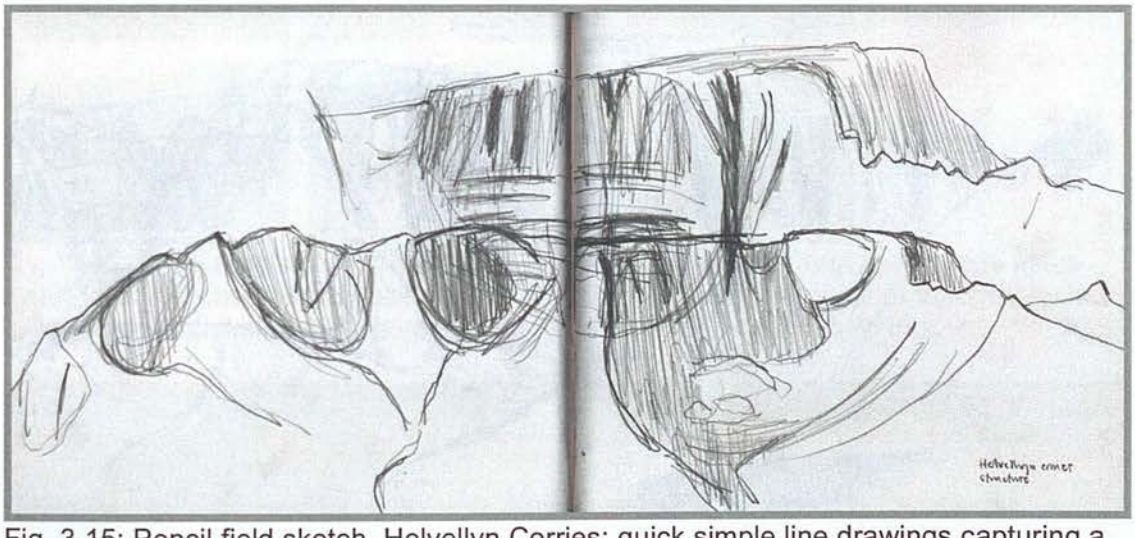


Fig. 3.15: Pencil field sketch, Helvellyn Corries: quick simple line drawings capturing a sequence of shifting views and singular moments of changing light.

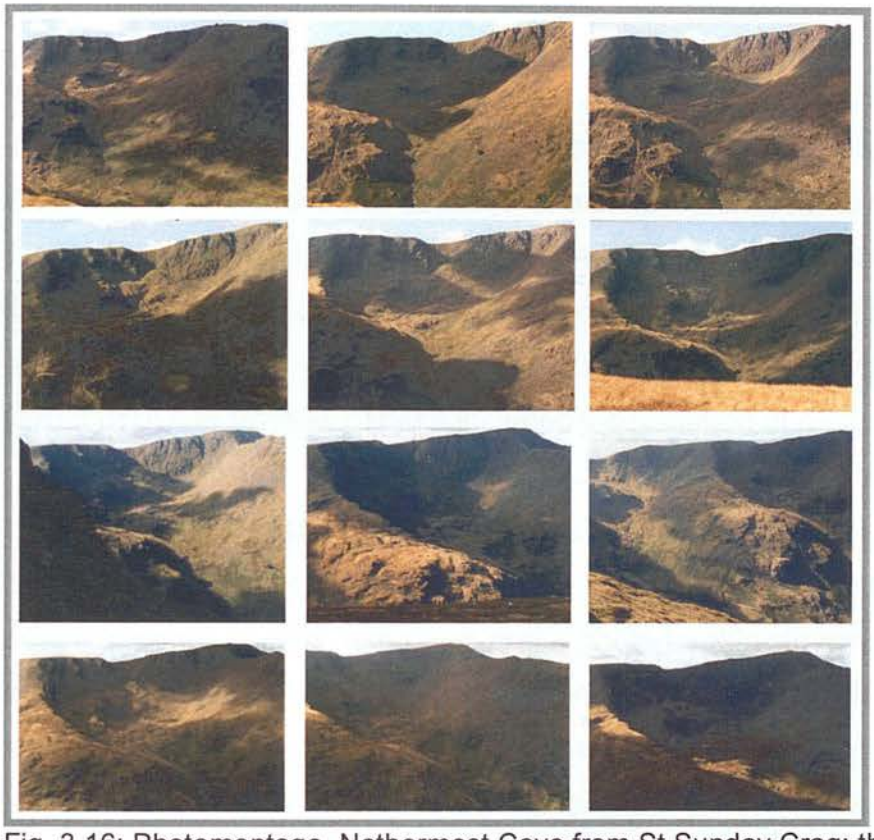


Fig. 3.16: Photomontage, Nethermost Cove from St Sunday Crag: the change in the position of the observer and the shifting light throw different aspects of topography into relief. Sequential sketches, across space and through time, capture this.

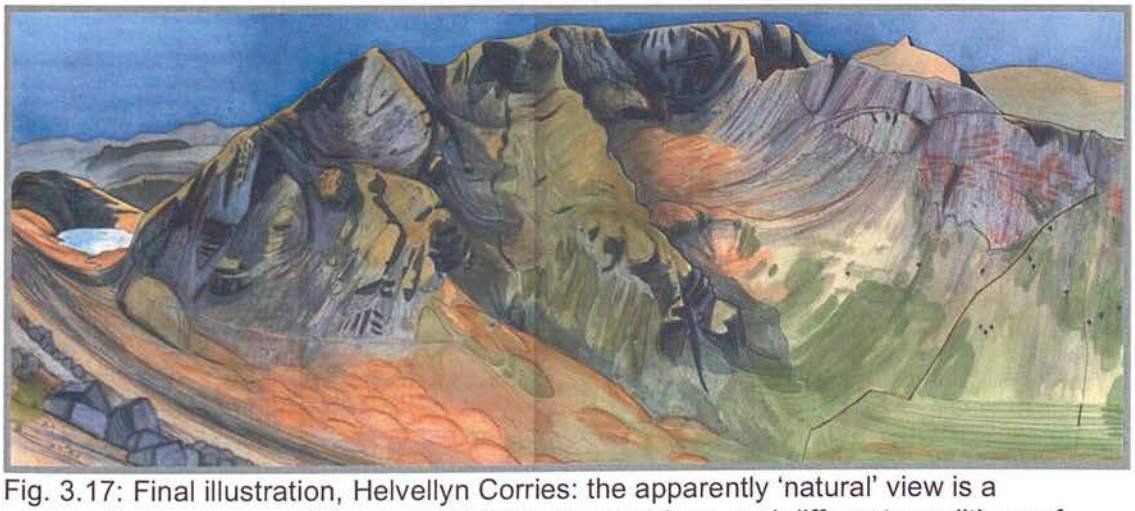


Fig. 3.17: Final illustration, Helvellyn Corries: the apparently 'natural' view is a composite image, combining both multiple perspectives, and different conditions of illumination to a *best effect.*

Case Study 6, Loch Ruel oyster farm proposals

Background

This project was to develop proposals for establishing an oyster farm on Salthouse Point, Loch Ruel estuary, for a private client, as farm diversification. The outputs were landscape related materials to support a planning application. The researcher was commissioned to undertake a landscape and visual impact assessment, including an appreciation of scenic qualities, to site and design the layout of oyster trestles. These included visualisation of design options.

Key points demonstrated and lessons learnt

Sketches throughout the day were made to take in different tidal conditions. A series of pencil studies, site notes and a photographic survey, were made whilst accompanied by a client, taking in pre-set fixed viewpoints. The project spanned a wide range of work, landscape assessment, design, and visualisation, but within a small and visually contained area. It demonstrates how field sketches have a versatility of application and can be simple tool used to carry out visual research, and directly as the graphical basis to design decisions and visualisation of scenarios of potential landscape change. The site work shows research and gathering of information, with the field sketch and associated notation acting as mediums to aid exchange, through discussion and responsive interaction with the client. This establishes both the practical operational needs of the proposals and the potential visual consequences of different solutions to meet those needs.

Roles of sketching and visualisation

Sketches and visualisations were used to describe landscape quality: in particular simple pencil sketches outlined the shape of the tidal flow forms of the sea loch.

Sketches made whilst talking to the client demonstrated the principles of *landscape-fit* to the client in a straight forwards way, directly referencing the landscape. The outlines and shapes of the sketched tidal flow forms made *templates* used to generate design form (shape and scale) for the oyster trestles. This provided a seamless and transparent transition from landscape assessment, to design thinking, to proposals.

Sample images

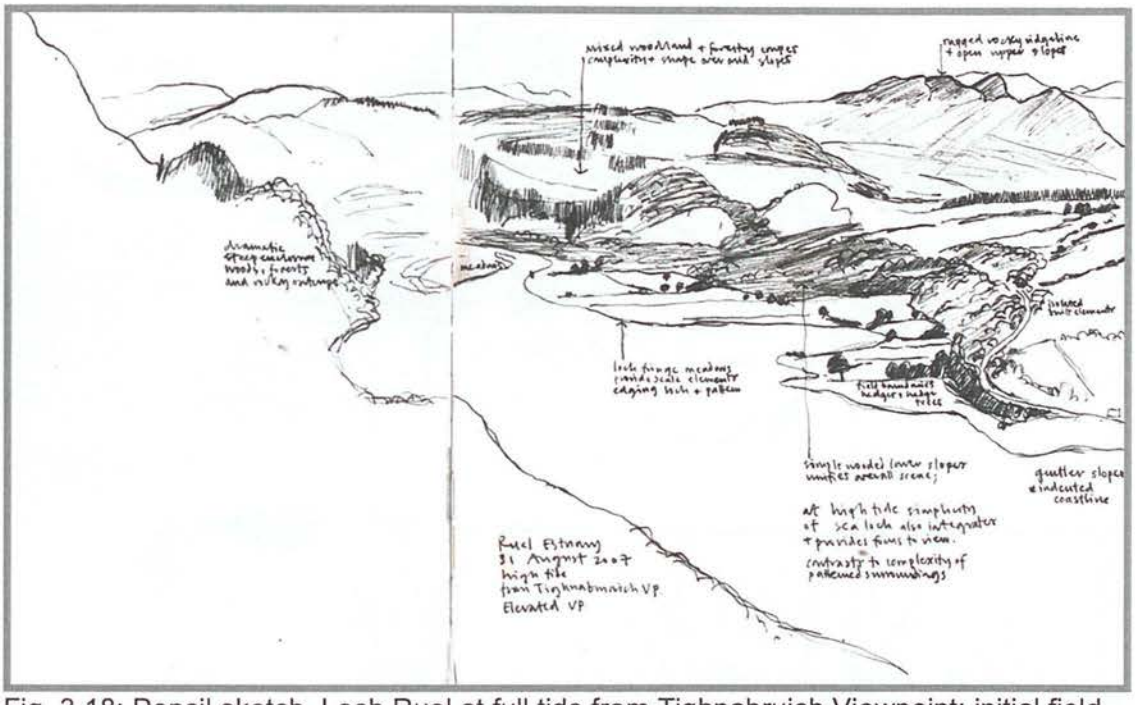


Fig. 3.18: Pencil sketch, Loch Ruel at full tide from Tighnabruich Viewpoint: initial field sketch, with attention to the wider landscape setting, and patterns of land cover and land use.

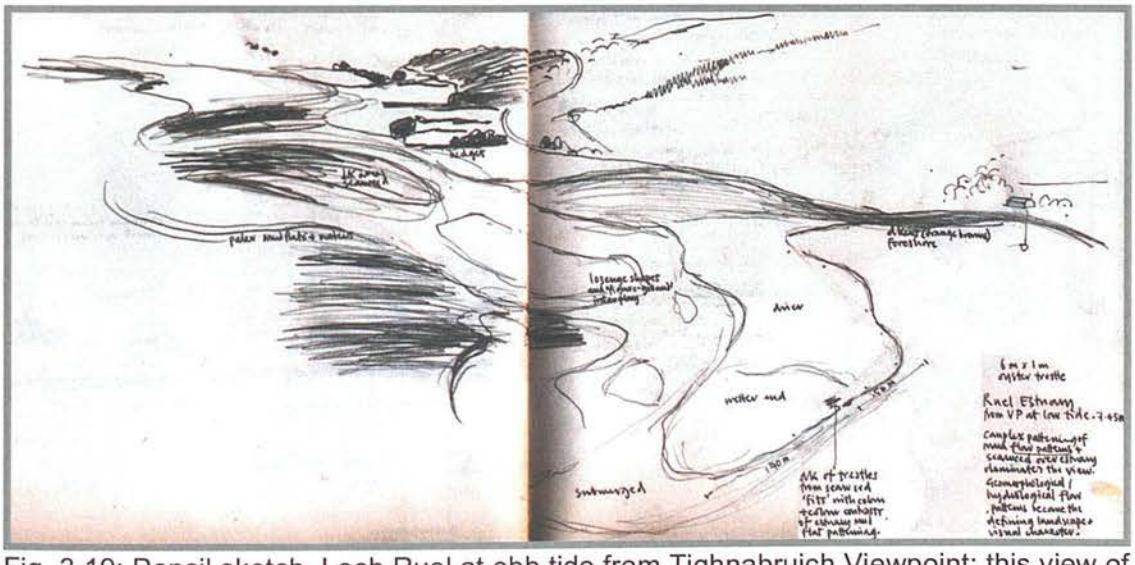


Fig. 3.19: Pencil sketch, Loch Ruel at ebb tide from Tighnabruich Viewpoint: this view of the exposed tidal flow forms entirely changes, and becomes a key 'template' in developing design options that achieve *landscape-fit*.

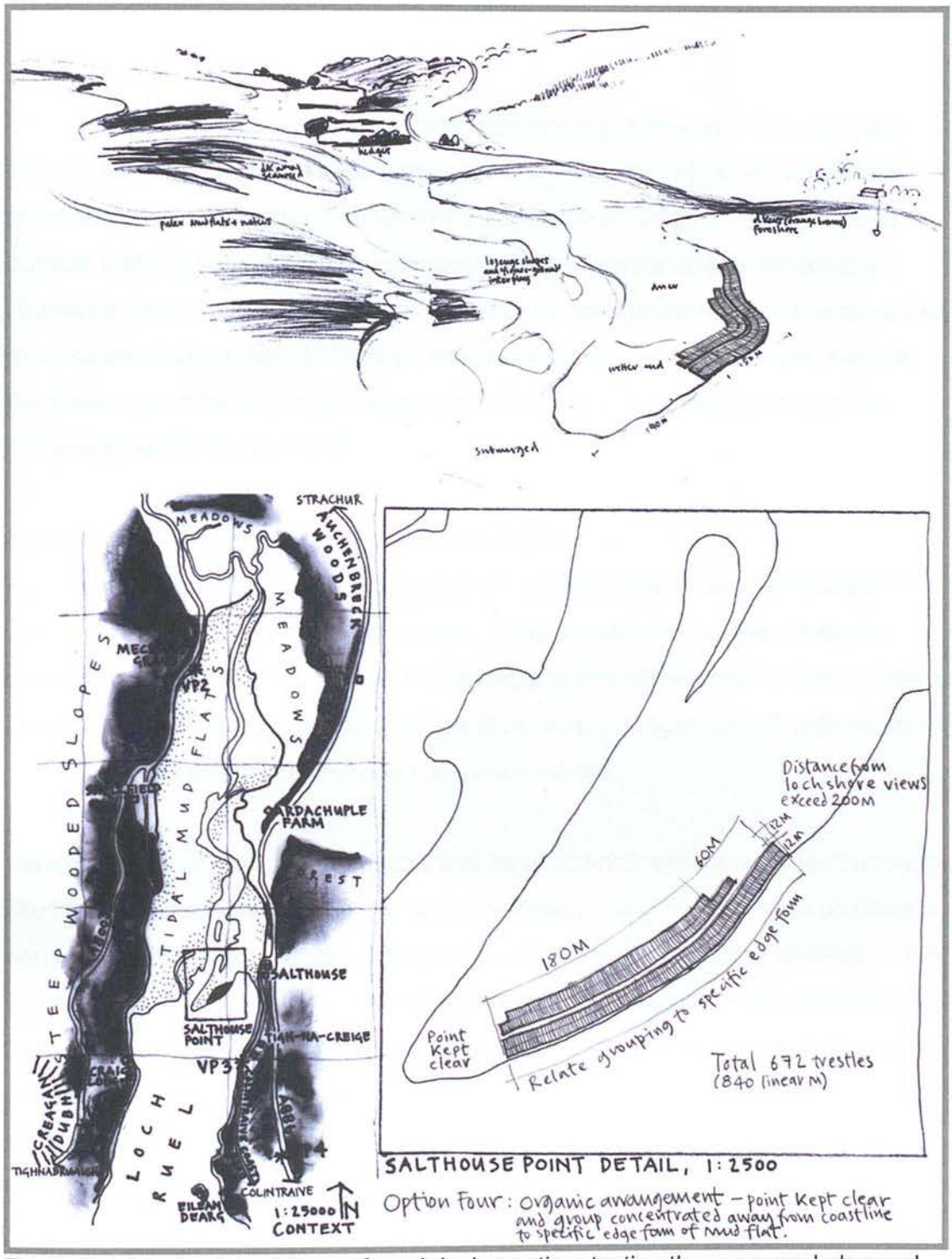


Fig. 3.20: Visualisation of the preferred design option: testing the measured plan and the design principles, against the consequent sketch visualisation of the proposals.

Case Study 7, Yorkshire Dales, landscape and scenery

Background

This project falls in to both professional practice as Landscape Conservation Officer, for the Yorkshire Dales National Park Authority (YDNPA), and artistic practice of the researcher; in both instances, work in progress. Professional outputs include developing visualisations to help conceptualise landscape character and integrate it across other YDNPA work programmes: the trees and woodlands strategy and integrated access strategy. Alongside work, living in the Dales has provided a prolonged period of arts-based research in to *the barns and walls the scenery*[2].

Key points demonstrated and lessons learnt

Accompanied site visits with Rangers gave an overview of and familiarisation with the whole National Park landscape. This provided an *insider view* and broad knowledge of large areas of landscape in a relatively short period of time. Deeper understanding of smaller areas grew over a longer period, with repeat visits at different times of day and different seasons.

Visual models of *typical landscapes* and local distinctiveness were built up from sketches to diagrams, key views, and overviews. Such visuals were used as a communication tool for landscape advice, discussion and testing of ideas. They were also a starting point for the integration of landscape concepts and spatial framework in to other YDNPA work. Understanding the relationship between physical landscape character and other experience-based landscape qualities, such as scenic qualities, busier and quieter areas / tranquillity developed through being out in the landscape. In this respect time spent through a less

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[2] *Barns and walls scenery* – a Special Quality of the Yorkshire Dales National Park, and the defining characteristic of the Barns and Walls Conservation Areas of Swaledale, Arkengarthdale, and Littondale.

structured artistic approach was invaluable to inform professional judgements, where site visits are rarely accorded sufficient time resource or priority.

Simple linear drawings were effective in exploring and capturing visual qualities of pattern. These were the principle output, generating a large body of evolving work.

Roles of sketching and visualisation

Field sketches and sketch visuals were used directly to demonstrate landscape character and local distinctiveness principles; referred to as a source of understanding for aspects of typicality and local distinctiveness, and used to develop visualisation models for these landscape concepts. *Typical landscape* visualisations can embed a landscape character approach into other work, and landscape provides a spatial and aesthetic framework as a basis for integration of natural and cultural heritage priorities. The visual qualities that underpin a specific scenic quality, such as pattern and line in the dales, were explored with sketches.

Sample images

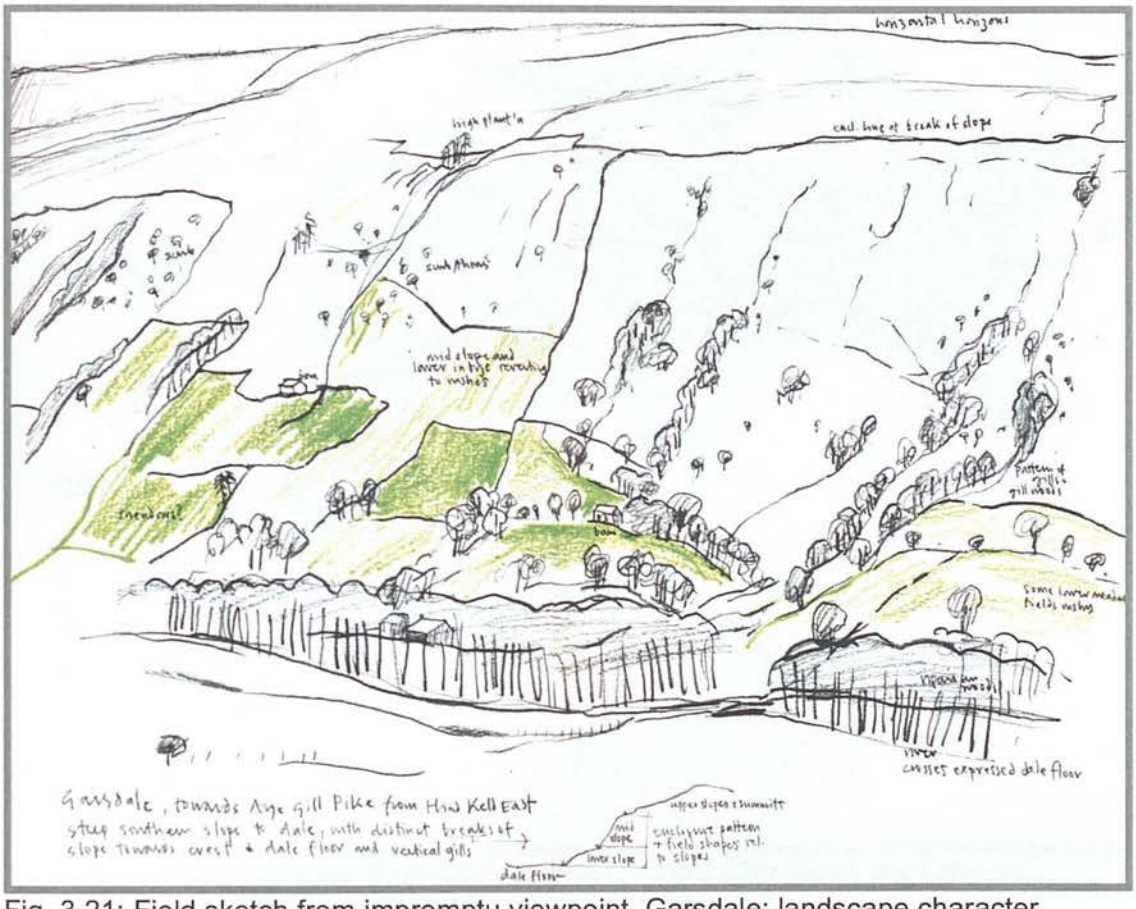


Fig. 3.21: Field sketch from impromptu viewpoint, Garsdale; landscape character assessment study, the relationship between landform, and land use pattern.

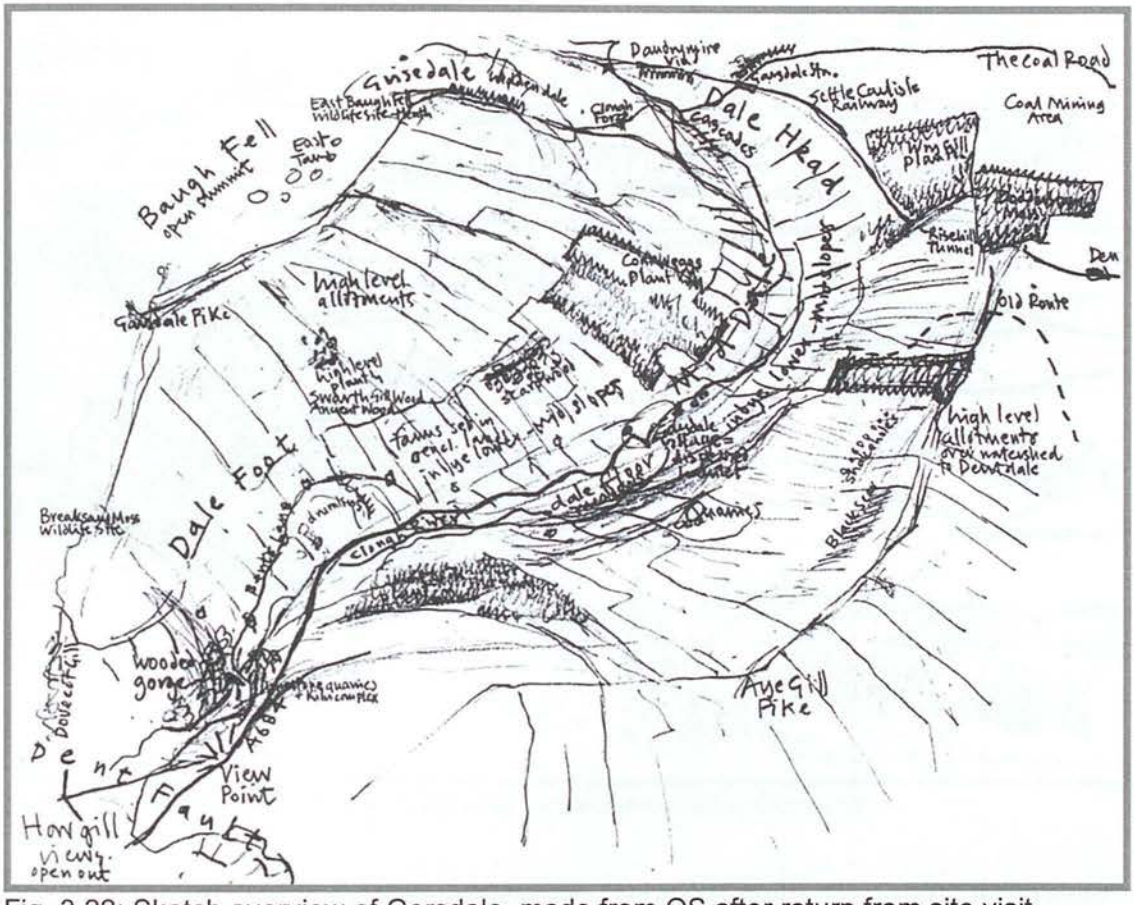


Fig. 3.22: Sketch overview of Garsdale, made from OS after return from site visit.

Landscape character assessment disaggregates the landscape in to characteristics and features. The sketch visual brings the whole landscape together, with annotations pointing to its parts.

Fig. 3.23: Pencil sketch from an elevated viewpoint above Gunnerside.

The visual quality of the Dales landscape, the walls, fields and barns that make up the characteristic 'barns and walls scenery', lends itself well to sketching – there is much about the line and pattern, captured well with a simple pencil drawing.

The opportunities to see the landscape from above from the many public footpaths and roads that follow the upper dale slopes and cross over the watersheds makes the patterning of the landscape easy to see.

Chapter 4 Acquiring skills: workshop outlines

Introduction

Chapter 4 attempts to answer the following question with some illustrated observations.

How easy is it for non-artists to learn basic sketching and visualisation skills?

Recognising that this thesis considers field sketching and associated visualisations based on the practice of an experienced landscape practitioner and artist, the scope of applying the research findings more broadly may be limited. The section presents the tasks and outputs from sketching and visualisation workshops and tutorials to see how readily skills are acquired and results achieved.

Presented as *mini-case studies*, these are written in the first person, similar to the main thesis case studies. See Appendices 1-7. The observations have not been formalised through a more rigorous process of *reflection-on-action.* Nor has the literature in this area been referenced, although Eileen Adam's work on learning and development of drawing skills (2002) and Richard Sennett's work on craft practice (2008) are relevant and have been referenced elsewhere in this thesis.

How and why children draw – and why don't adults?
An endnote on the skills that seems to get harder, as we get older.

Two workshops and a less formal tutorial are used to trial how readily learnable basic field sketching and visualisation skills and techniques are.

Tutorial for archaeological fieldwork

I met Rebecca Rennell at Clatteraval wheelhouse: an *Atlantic Wheelhouse,* of approximately two thousand year old, built in to one end of a Stone Age chambered cairn, of more than double that age. Becky was undertaking the fieldwork for her PhD thesis, (Rennell, 2009) which involved her surveying all the known Iron Age sites in the Outer Hebrides. These included the atmospherically sited *island duns,* coastal duns, coastal wheelhouses, and occasional wheelhouses, like Clatteraval, higher up on the moorlands.

Becky was developing an *experiential* approach to understanding the Iron Age landscape and its sites. I suggested she might try field sketching as part of her survey pro-forma, with the notion that at some point we could more formally collaborate. Our differences of location and timescales meant that this hasn't happened yet, but Becky entered into the spirit of learning a new technique in an anyway challenging program of fieldwork and in some extreme conditions.

After observing how Becky drew naturally, basic tuition on establishing an eye level and scaling an image on to the page was given. The landscapes she worked in were often coastal, and typically characterised by extensive planes of tidal flat, *machair* or rougher peaty *blacklands.* For a non-artist the tendency was to *tip* this visually foreshortened plane on the page, such that the space becomes more obvious. Where Becky took in an overview, as at Clatteraval, the issue was how to suggest the sense of scale in the panoramas that open out, and deal with the level of detail.

However, inspite of these difficulties, the field sketches produced achieve all of the following:

- Spatial depth and recession.
- Here / thereness.
- Viewpoints, orientation, and composition.
- The nature of the view.
- Multi-sensorial perception.
- Fieldwork, movement and sketching.
- Annotations for additional information and as a prompt.

The field sketching technique was used for some sites but not others, and as such did not become a part of the survey. The time available per site was brief due to the overall sample size, of almost two hundred, and the logistics of some of the fieldwork could simply be too extreme to factor in anything as involved as sketching. Sketching was found to be useful, to provide a process to work out ways of understanding a site. Taking in the views outwards also made connections with other sites across the landscape. The sketches weren't considered to be 'good enough' to present within the thesis: Becky appreciated them for the *doing* and her own internal processes, but felt they didn't meet a presentational standard. (Rennell, 2010, personal communication)

The following presents some examples of Becky's field sketches and notes. The sketches all grasp both structure and texture and give an overall impression of the qualitative aspects of the landscape.

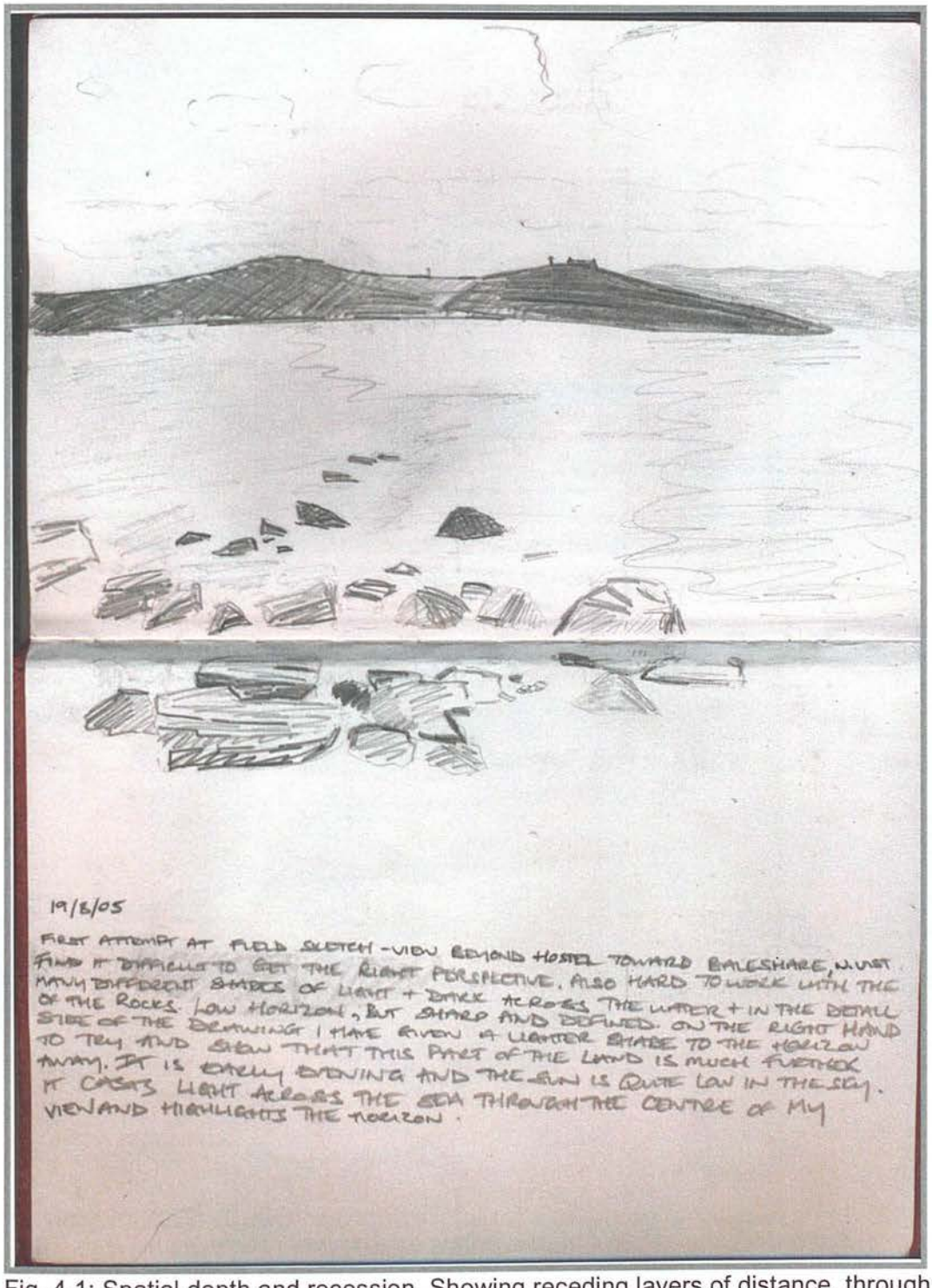


Fig. 4.1: Spatial depth and recession. Showing receding layers of distance, through varying detail, line weight and tone. The notes are an interesting insight in to Becky's awareness of the challenges of drawing, but also demonstrate a strong focus on how she sees the landscape. The sketchbook as a *reflective tool* for internal dialogue is shown.

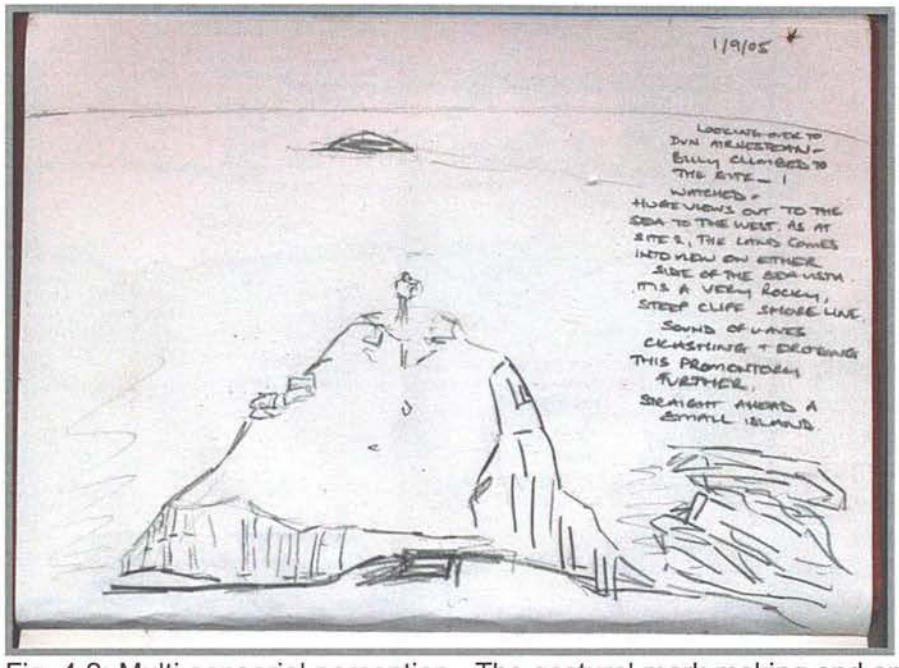


Fig. 4.2: Multi-sensorial perception. The gestural mark making and annotations capture the richness of sensual information.

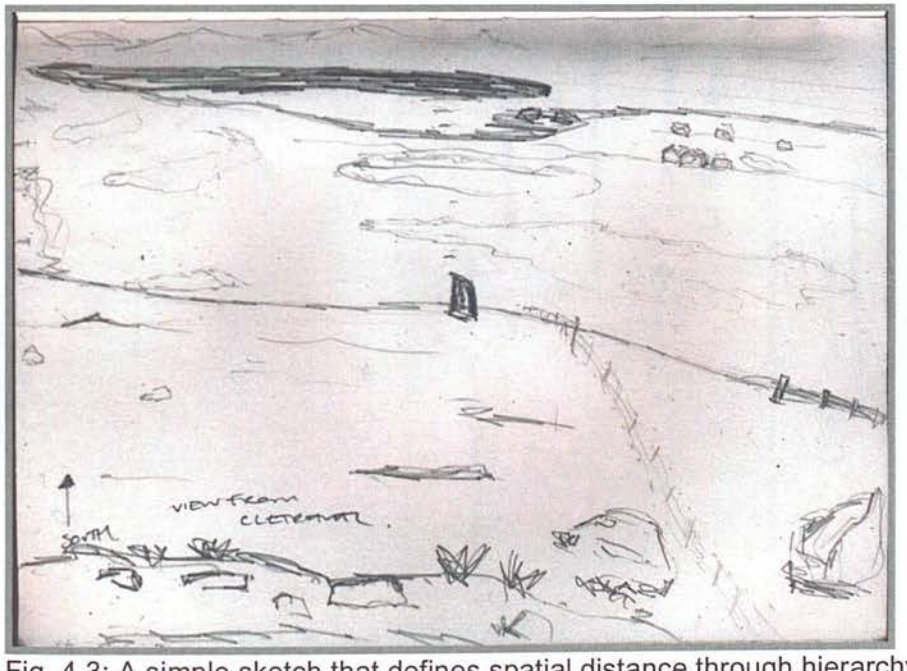


Fig. 4.3: A simple sketch that defines spatial distance through hierarchy. Detail and line weight. The focus of attention and orientation reflects the experience of standing on the site.

Both sketches have symmetry to the composition, set up with a focus on features in the mid-distance.

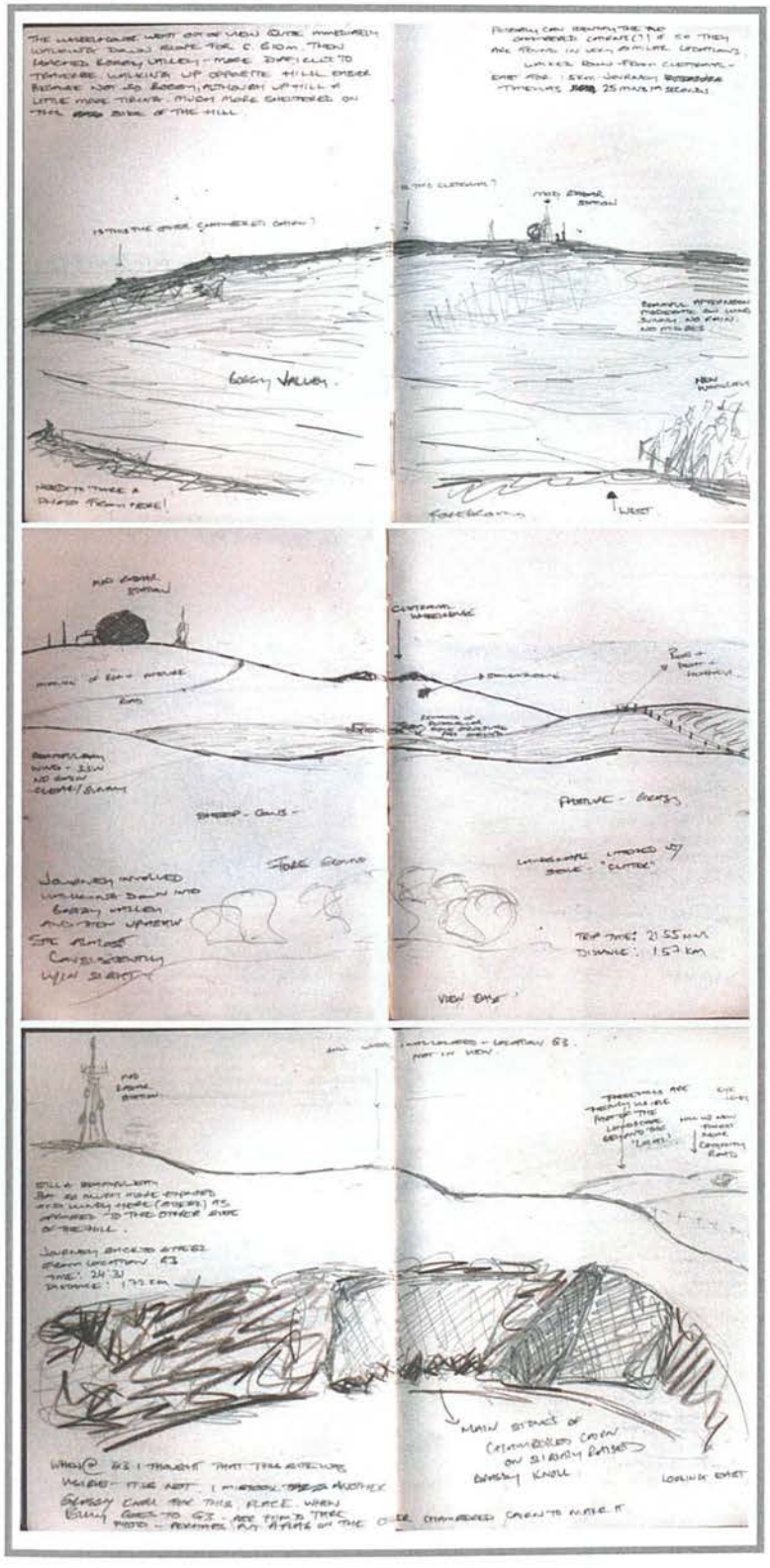


Fig. 4.4: Fieldwork, movement and sketching. Movement around the landscape builds a spatial model of how features and sites inter-relate, and are visible from one another. Drawing forces an observation of the subtle hill forms, as well as recording strong shapes and silhouettes. The sketches are undertaken in sequence, providing an impression of the dynamic experience of moving across the landscape, and changing visual qualities in different conditions.

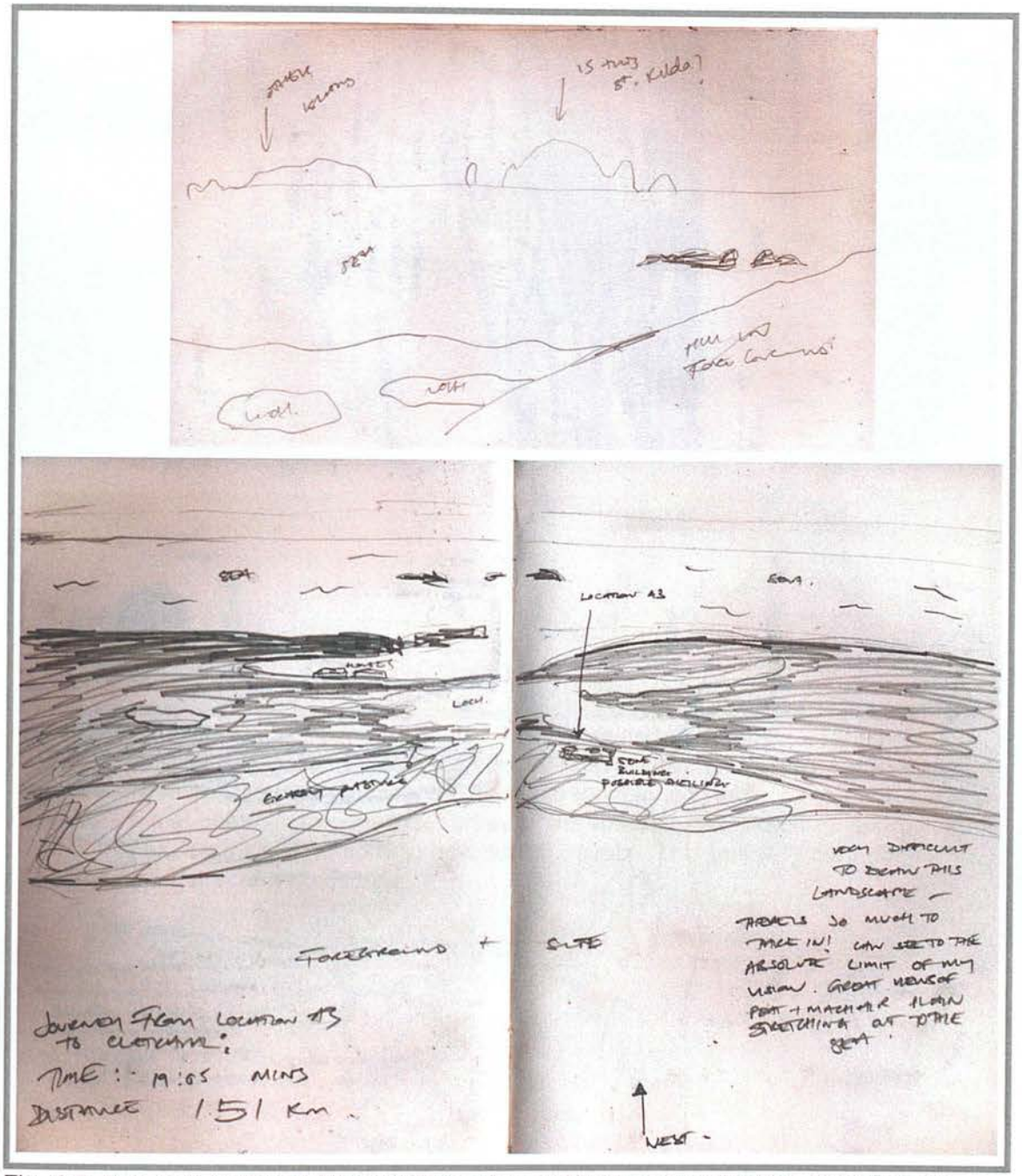


Fig. 4.5: Annotations for additional information and further investigation. Questions to check later. Difficulty in drawing the detail of a large panorama in part resolved by stylised graphics and labelling of features.

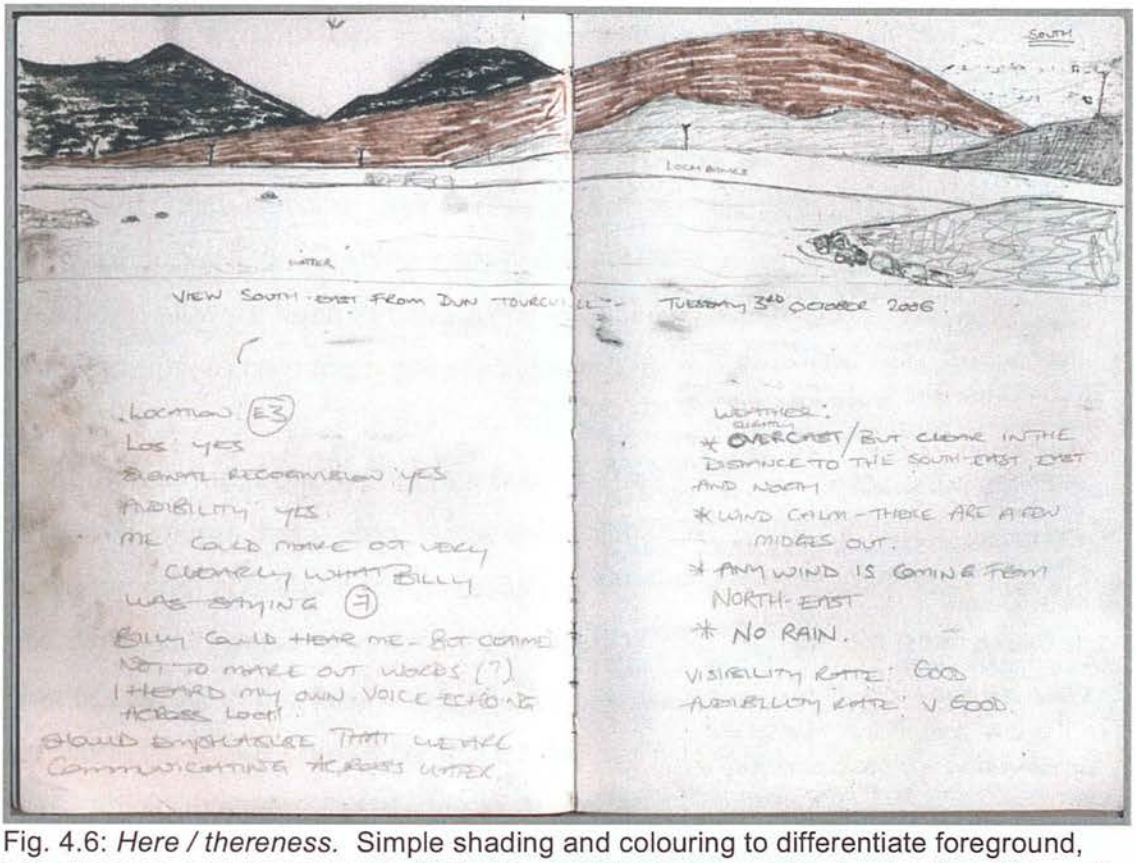


Fig. 4.6: *Here / thereness.* Simple shading and colouring to differentiate foreground, mid-distance, and background. Note the special relevance of understanding this quality to Becky's research: *nested landscapes*, from site to local, and wider landscape scales. Annotations that show an experiential survey of the weather conditions: an appreciation oh how this affects visibility, and also how sound travels. This builds in the multi-sensorial dimension of a landscape.

Sketching workshop: basic techniques for non-artists

Sketching sessions, as part of one of the staff development days for the Yorkshire Dales National Park Authority provided an opportunity to work with a group of *non-artists*. Coming from diverse backgrounds in terms of art training, and work, all were keen to have a go. I ran a series of half-day sessions with small groups, to help them get started with sketching.

It seemed to me, from experience over the years that the anxieties and disappointments that young people and adults face when they try to draw are of a similar kind; and that once an individual hits a stumbling block, they are easily discouraged. I decided to keep the exercises quite focused on a couple of simple stages. In this way levels of success could be achieved through working on problems that (I hoped) could be relatively easily explained and resolved. The participants were introduced to: techniques of scaling from reality and transferring the information in a view to make simple outline sketches, the concept of the eye level, and basic pencil rendering. In combining both more technical laying out skills and more expressive textural mark making, I intended that there would be something to suit different interests and strengths. Each two hours session included a demonstration, a tutored session, and a feedback session.

Fig. 4.7: Sketching workshop, measuring and scaling.

The demonstration started with all of us moving around the general area of the river bank, using pencils to measure off proportions in the view, and seeing how the shape of the river changed from higher up the bank and lower down on the pavements. All of this was before putting pen to paper, and involved asking questions, such as:

- 'what do you like best about the view?'
- 'how much wider do you think the bridge is than it is high?

I then selected a viewpoint and *thinking out loud* showed how to use a pencil at full arm stretch to scale off the view. Using a series of thumbnail sketches I demonstrated the range of possible outcomes that could be achieved from the same viewpoint but with different emphasis on the subjects, with small changes to viewpoint, and in making certain compositional choices.

The principle of *good proportions / Golden Section* was explained.

1 Pencil measures – rough measures heights / breadths
2 Choosing V.P. – dominance of subjects
– atmospheres : verticals → drama
horizontals → tranquility
movement
etc
3 EL and placing subject acc. to golden section
4 Transferring the grid to the page – choosing composition
+ choosing working format → discuss landscape / portrait format
↳ 'filling the page'
5 Focal point of image
6 Basic structural blocks
7 Reference marks eg. lanes
↓
8 Developing the drawing

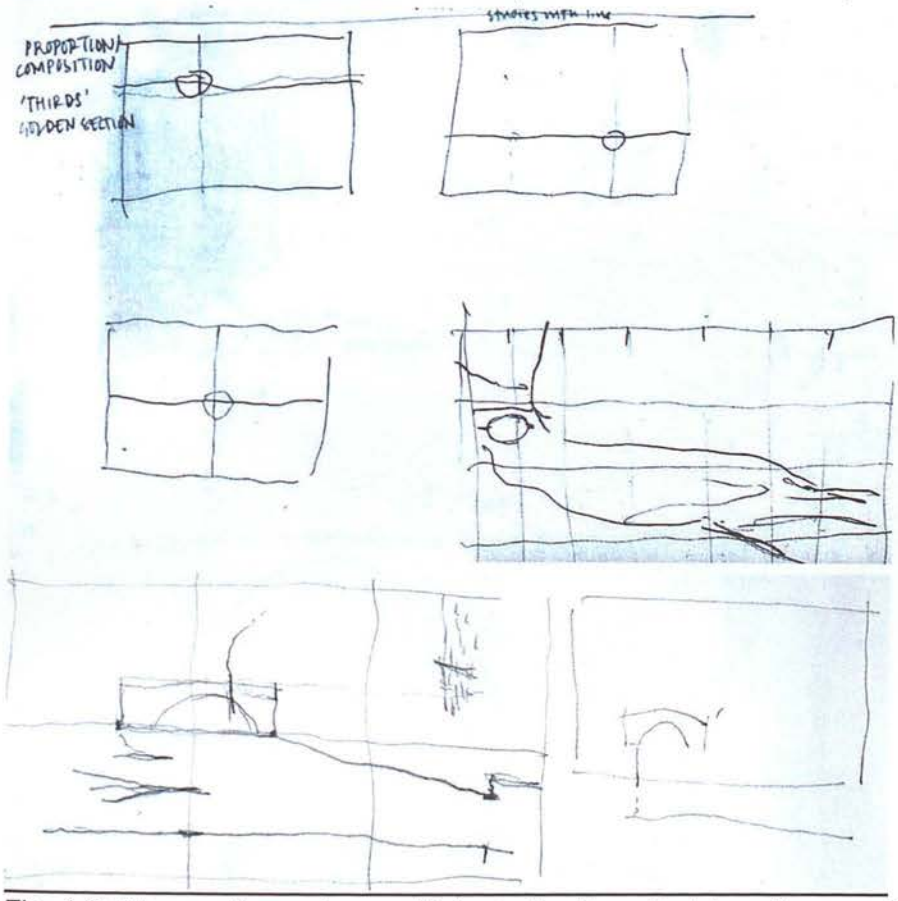


Fig. 4.8: Stages of exercise, and introducing the principles of composition.

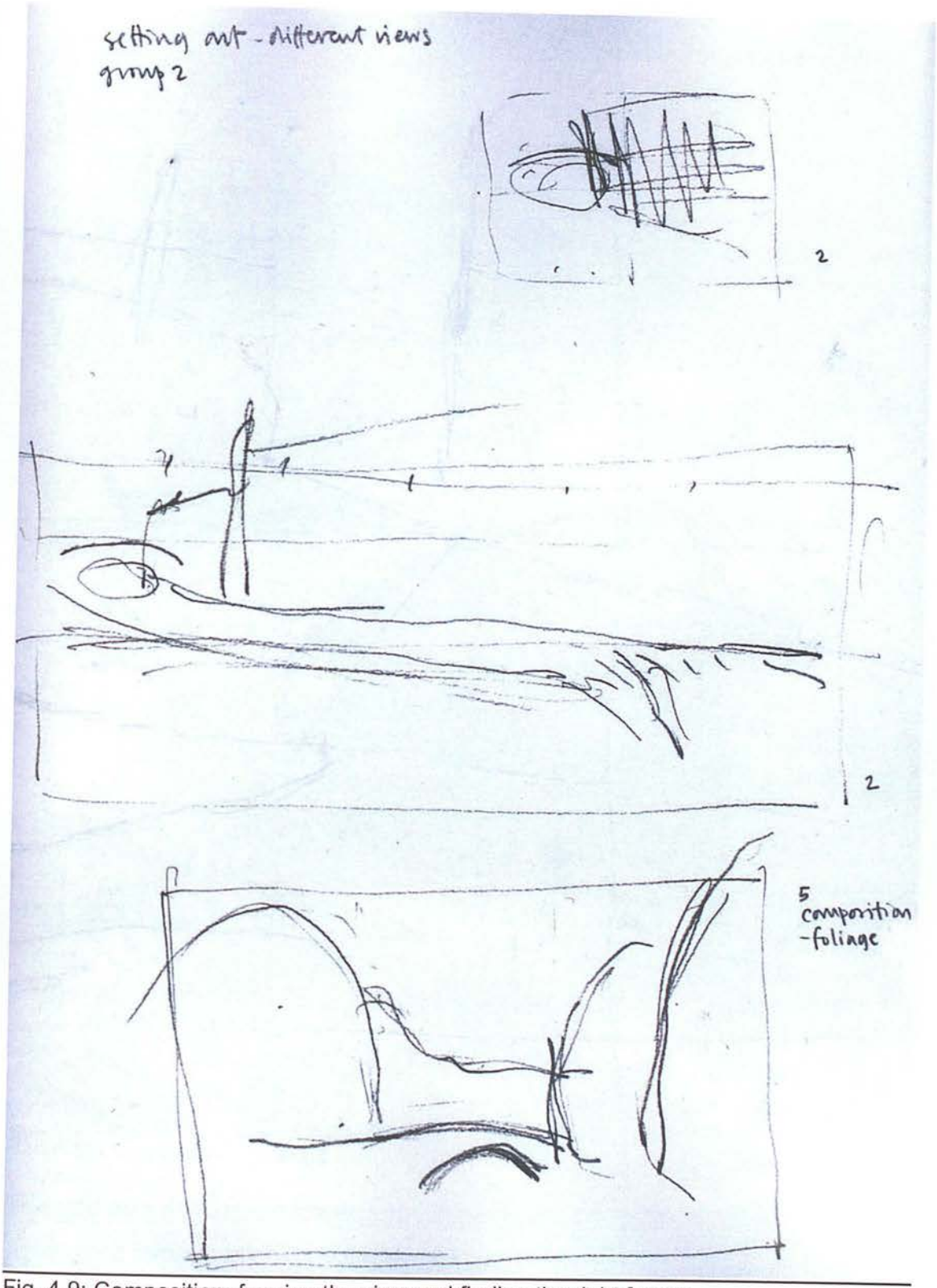


Fig. 4.9: Composition: framing the view and finding the right format.
The sketchbook as frame.

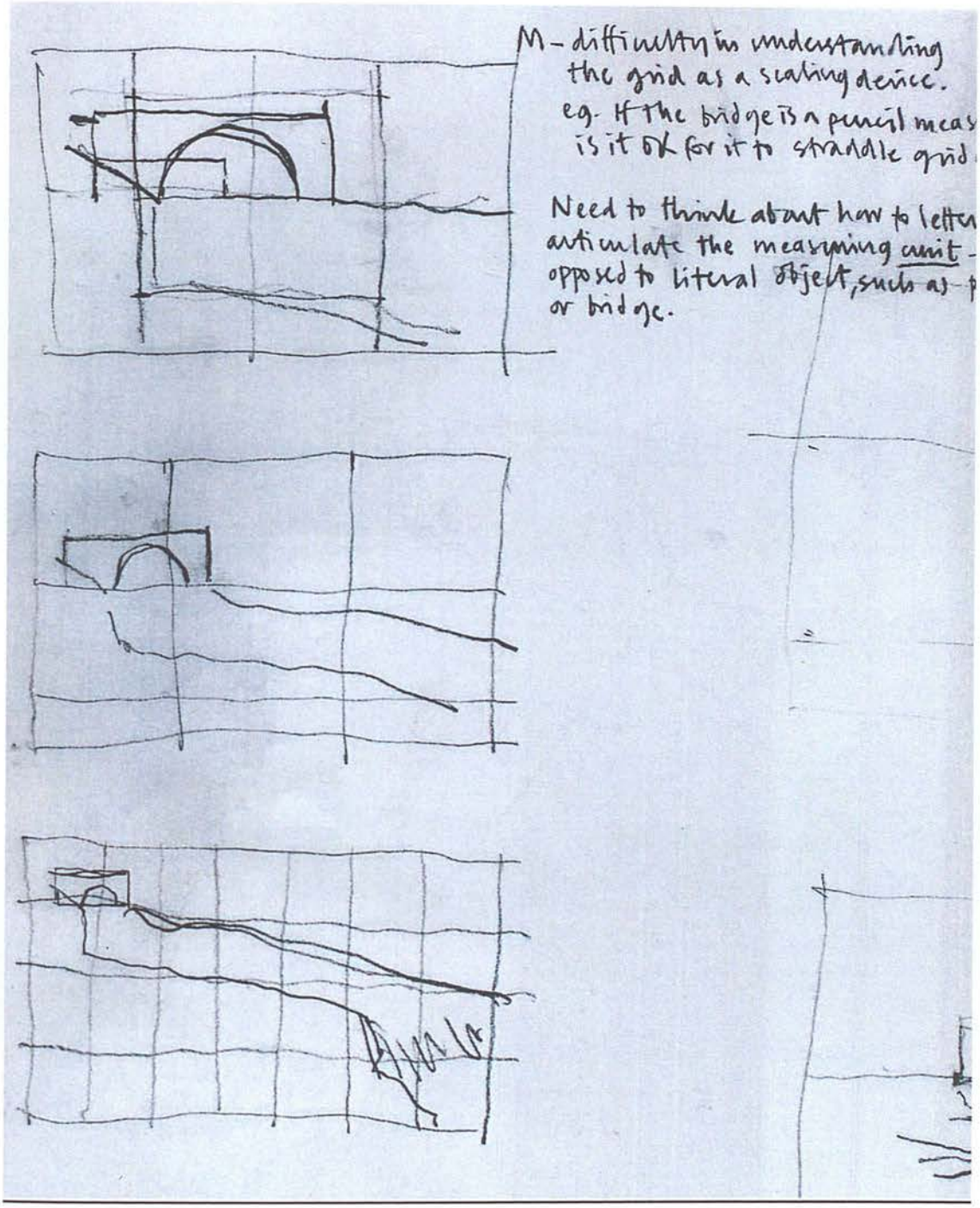


Fig. 4.10: Composition: scaling and emphasis.

The grid as a scaling device was not without problems and although this has developed through my own training as a landscape architect I could see that it was counter intuitive for some people. However, in a very general sense it did

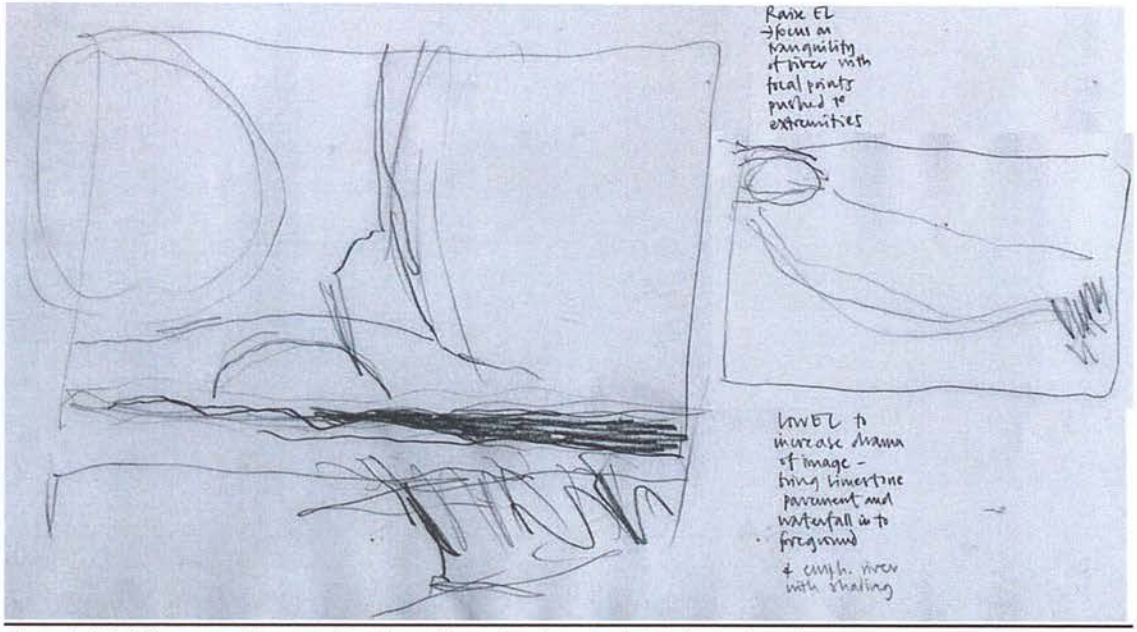


Fig. 4.11: Composition: adjusting the viewing height / eye level.

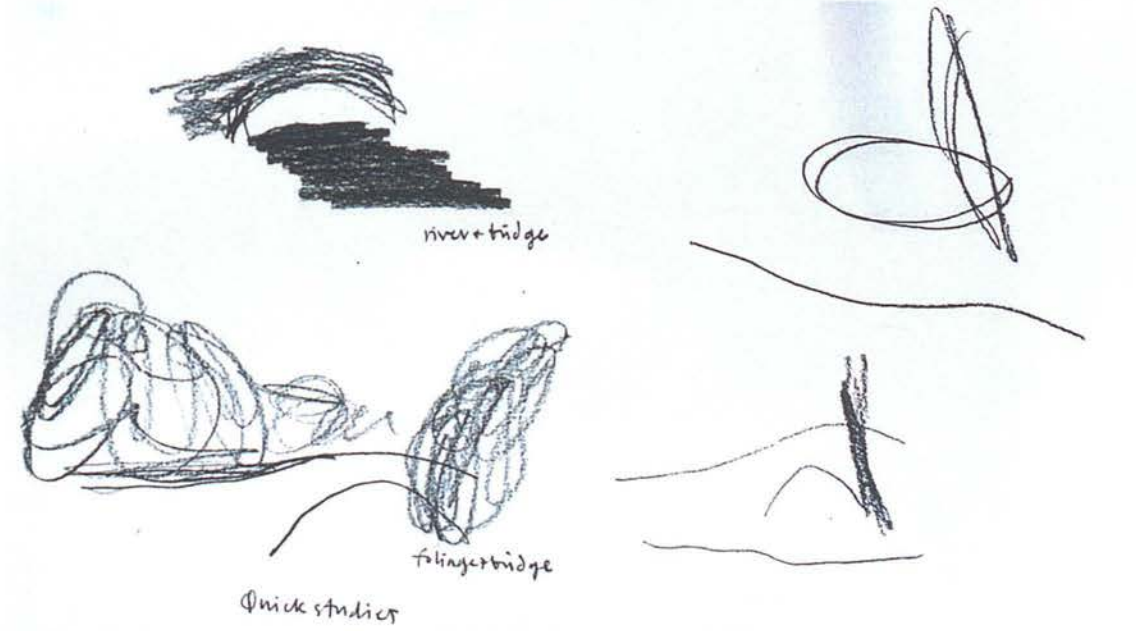


Fig. 4.12: Composition: quick sketches. 3 lines, 3 marks.

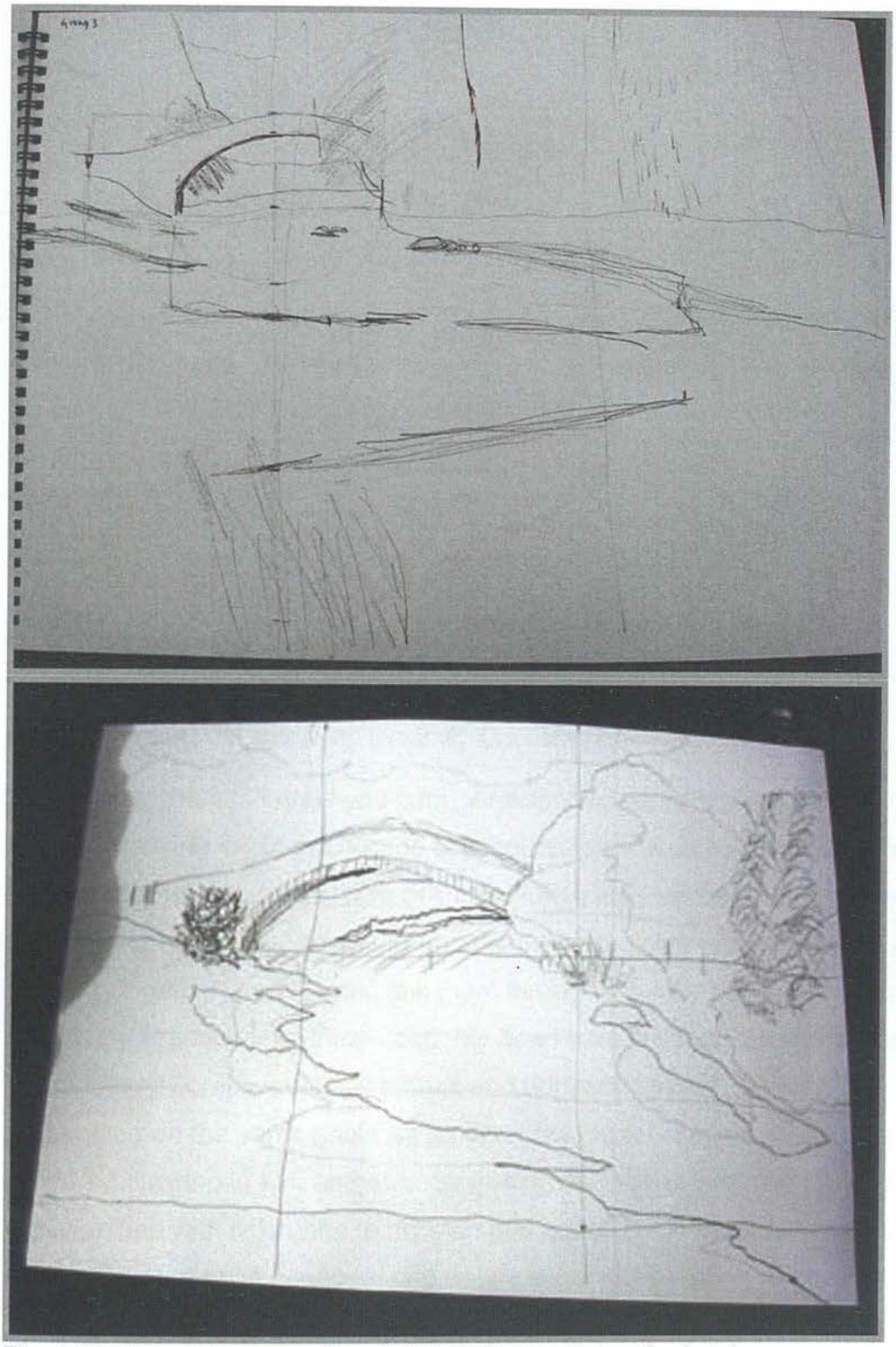


Fig. 4.13: Above, demonstration sketch, below participant's sketch.

Fig. 4.14: Setting out a drawing together. The demonstration sketch.

'If you think you can't draw you can!' Anticipating some resistance, this had been my rallying cry to encourage colleagues to try sketching. Gillian and Janet were in my last group and were delighted to tell me that they really couldn't, and really never had. After going through the initial exercise I suggested we all tried a sketch together: that I would talk them through my own actions and they could effectively shadow everything I did. My heart sank as they chose the waterfall as our study: complex vertical planes and horizontal strata. However, proceeding on the same basis we all got a reasonably set out and partially rendered drawing in half an hour. By *tracing* my moves in observing and drawing, and with reference to my own grid on the page as I filled it out, Gillian and Janet were quite confident and happy in handling putting pencil to paper.

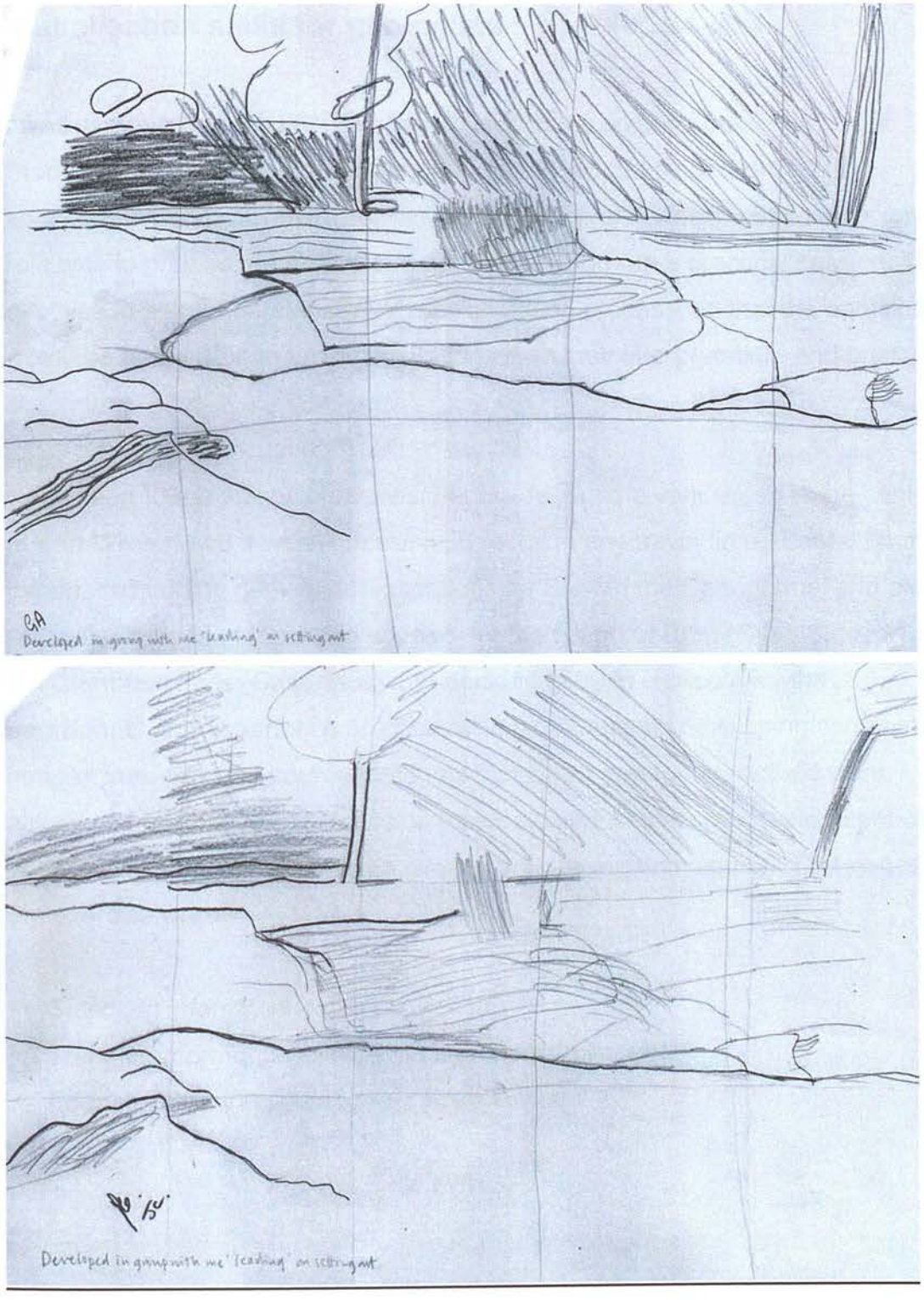


Fig. 4.15: Setting out a drawing together, the participants' sketches.

Visualisation skills for geologists

I was commissioned by SNH to be involved in a workshop called Written in Stone[3], aimed at geologists and managers of Geoparks. James Carter, a specialist in interpretive writing, ran the workshop and was the main tutor. My role was to provide the illustrator's perspective and run a practical session. The aim was to help understanding of the illustration process, so that the participants would be better able to factor illustrations in to their interpretation, and brief illustrators.

I was keen to run a sketching session outside, but the venue was in the centre of Fort William and it wasn't possible to factor in any travel time. Based on my experiences doing geological illustrations for SNH in the Cairngorms, and also other illustrations of mountain scenery for the Island of Rum (Case Study 2) and the Cumbrian Fells (Case Study 5) I decided to try to replicate for the participants, the experience of 'constructing mountains': developing composite images from different source materials that whilst appearing *realistic* were actually interpretative. The session took participants through development of an interpretive image through some overlay and tracing techniques. The stages of the exercise were:

- Selecting information.
- Transfer information and create a composite image.
- Formalise the traced image as a rough visual.

[3] Scottish Natural Heritage, Sharing Good Practice: Written in Stone: Interpreting special landscapes, 20 November 2008, Fort William.

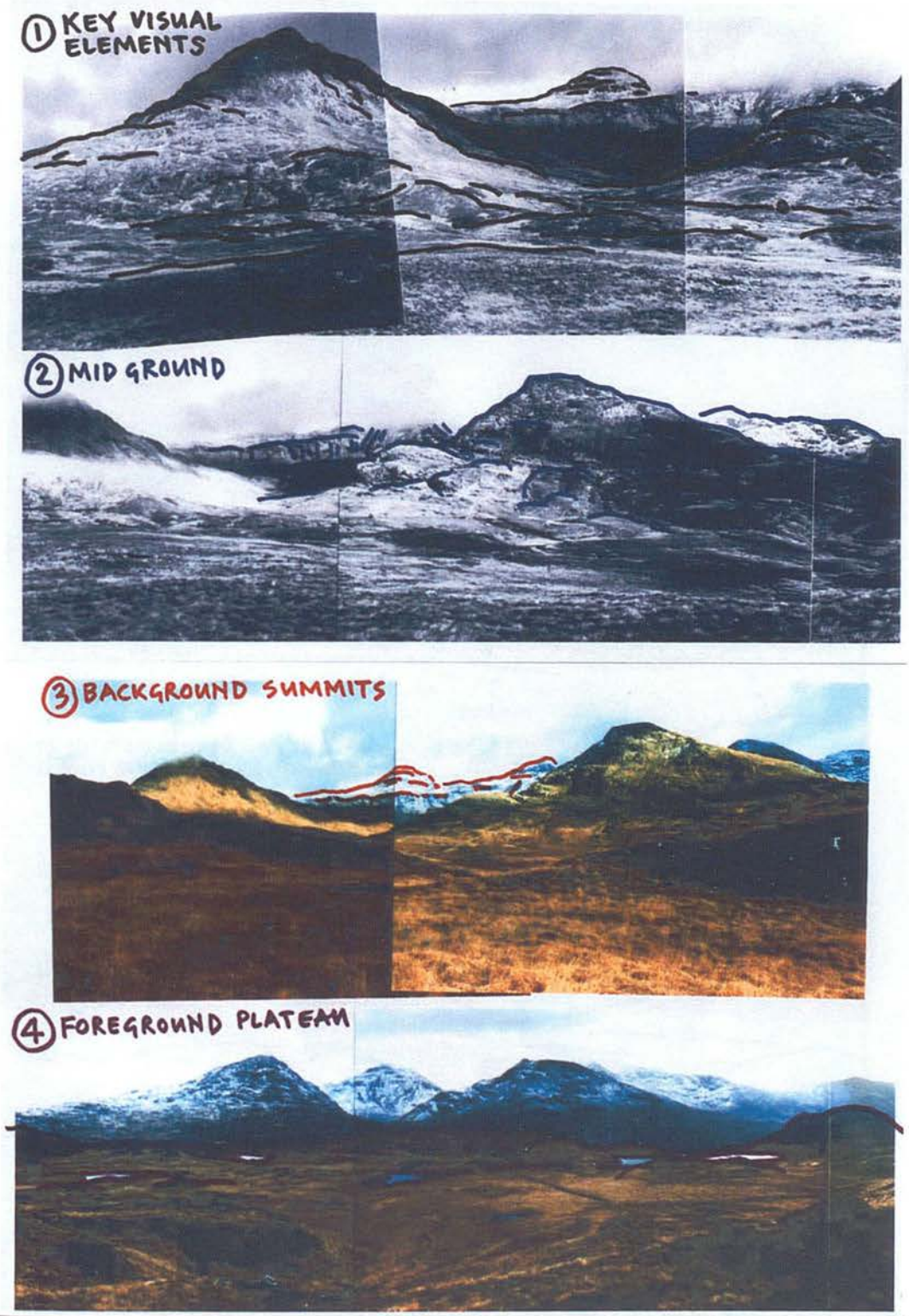


Fig. 4.16: Selecting information. Choose photographs that best represent the subject for interpretation. Trace the key lines directly on to photographic images.

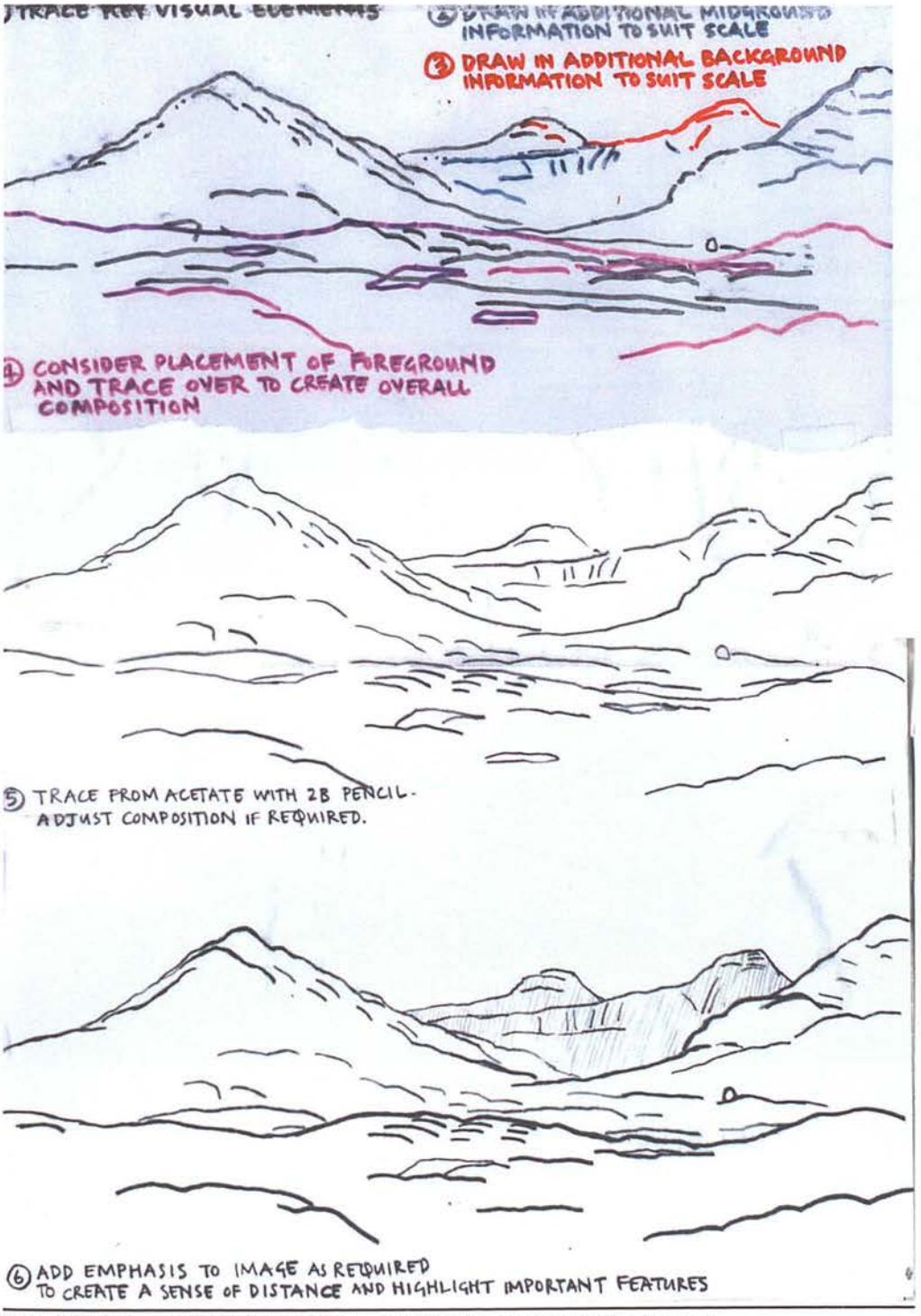


Fig. 4.17: Transfer information and create a composite image.
Using overlays of acetate and tracing paper transfer and manipulate the lines. Finalise the outlines and suggest spatial recession with line weight.

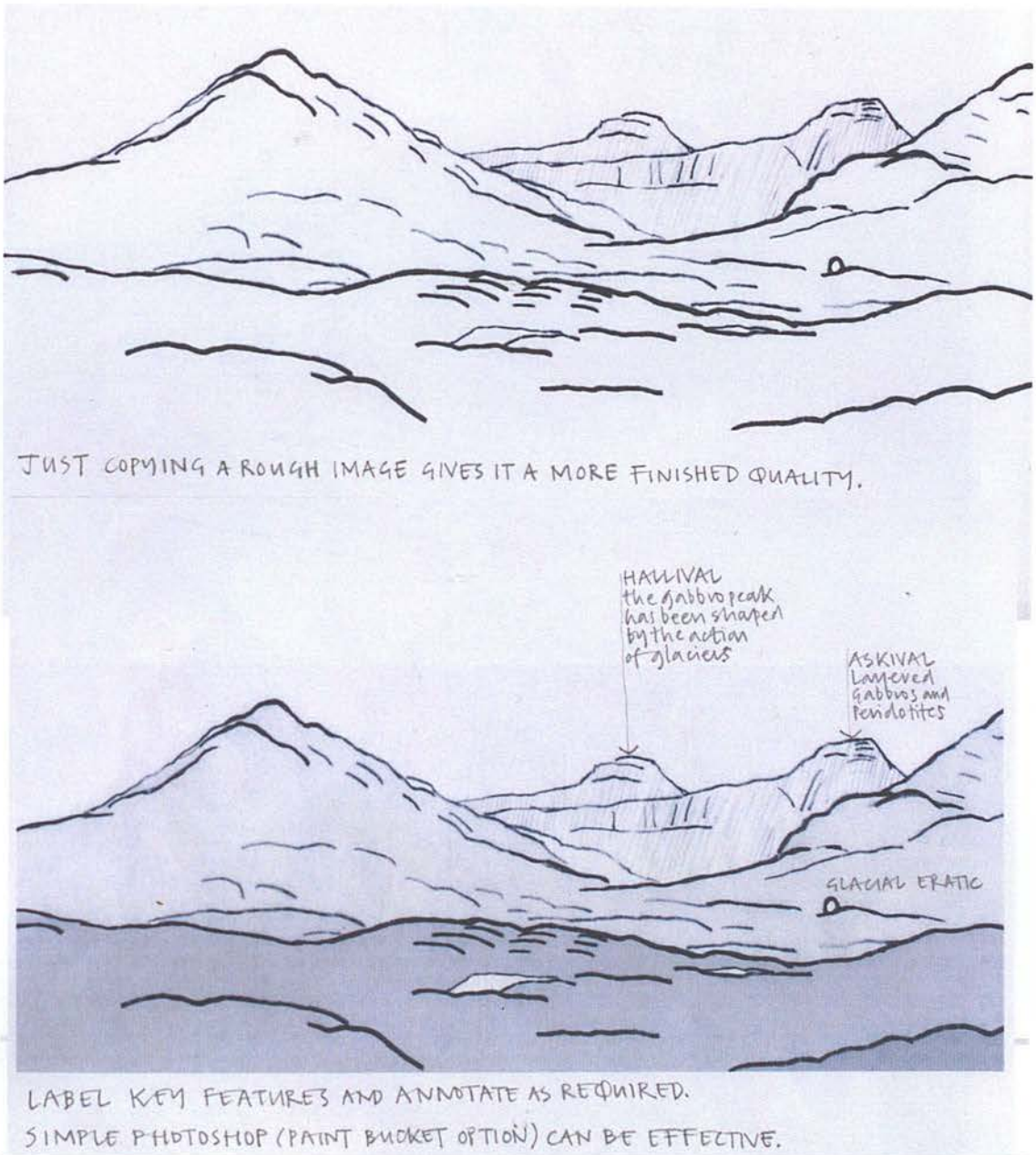


Fig. 4.18: Formalise the traced image as a rough visual.
Copying or scanning a rough visual to give it more finish.
Label key features and annotate as required.
Apply additional colour or tone, by hand or with Photoshop *paint bucket.*

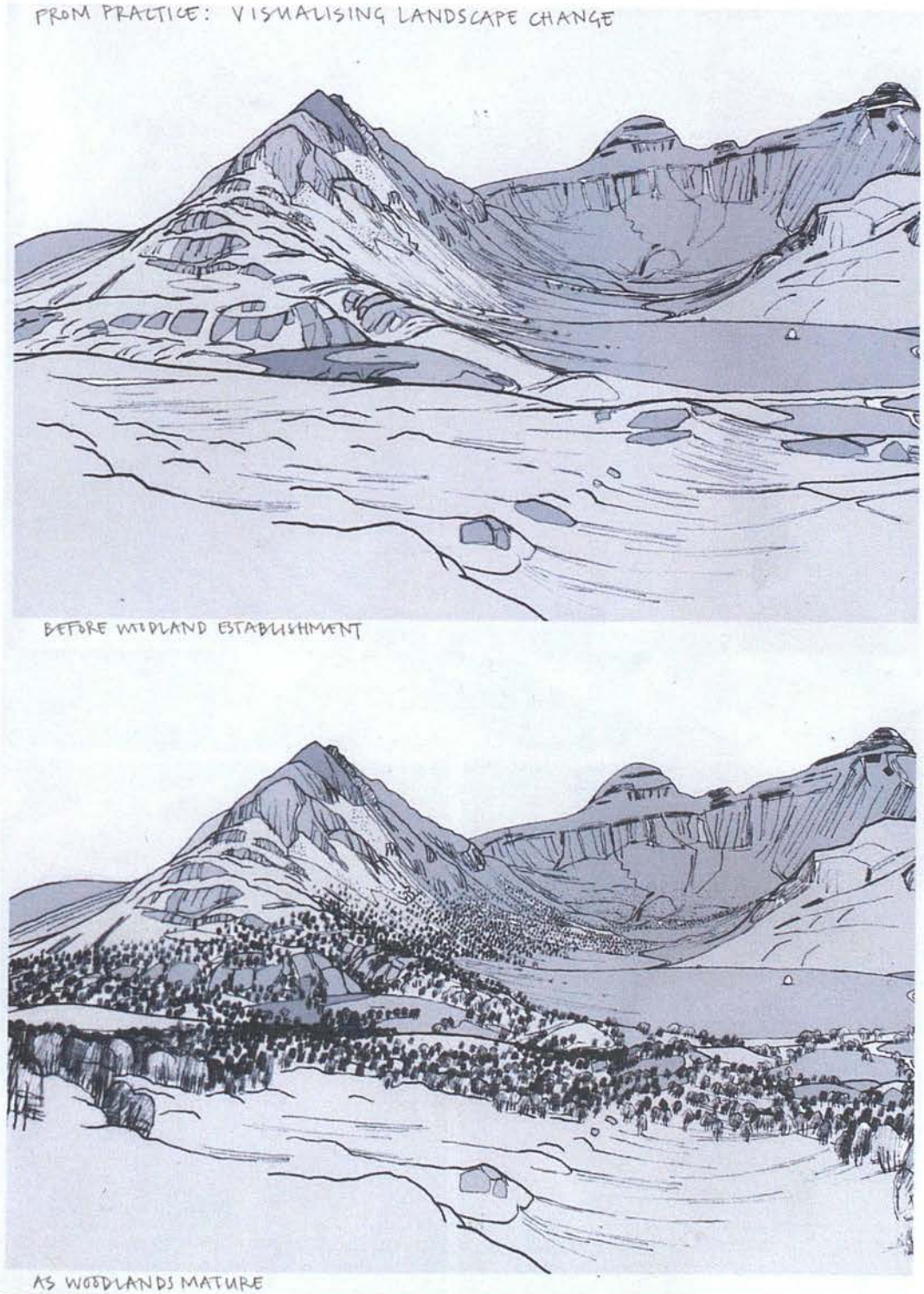


Fig. 4.19: Example final illustration.

Fig. 4.20: Visualisation workshop tracing exercises. Selecting information from various photos and transferring to acetate as composite image.

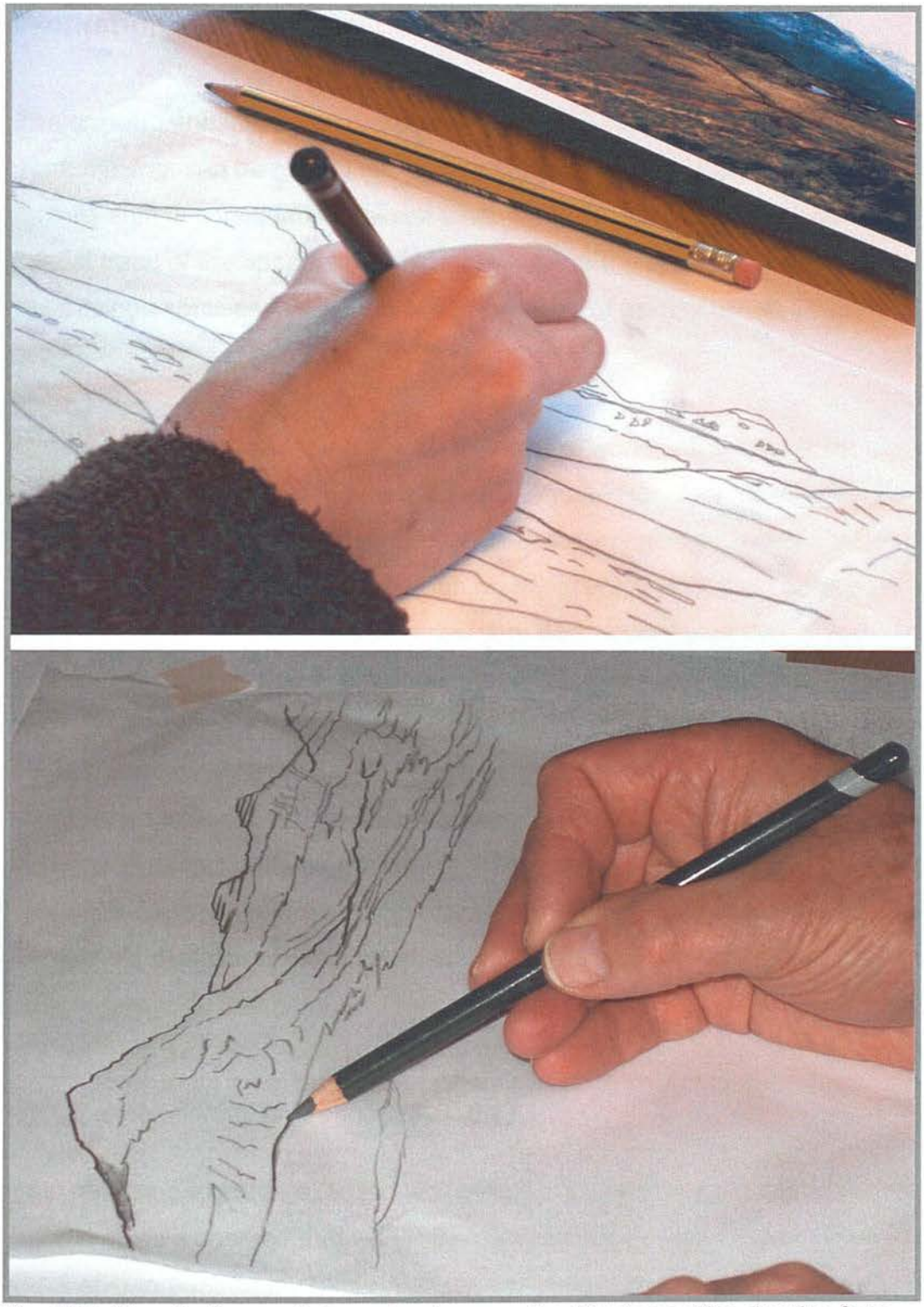


Fig. 4.21: Visualisation workshop, drawing exercise. Tracing outline drawing from acetate and applying line weight to differentiate

Workshop conclusions

The drawing and tracing workshops suggest that the physical activity of drawing, mark making, can be readily learnt, or simply *done without effort.* I observed a definite shift in confidence between when participants were *setting out* the spatial trace of the space, and when they were *filling in* the structures. Likewise, the tracing exercises seemed to pose no issues of anxiety or any tentativeness at all.

Left to work on her own, Becky's sketches were *working-thinking* drawings and her concern was not so much artistry as analysis. However, what was remarkable was how her clear perception of the landscape, very much informed by her own investigations of it through an *experiential approach,* seems to have enabled her to see and therefore draw very well. Even (arguably) if the drawings are not crafted in terms of mark making and expression.

John Torreano (2007) and Betty Edwards (2001) works on drawing *using Gestalt perception* is outlined in more detail in Chapter 7. Both see the issue of perception as being the stumbling block to drawing: not the action of drawing and mark making itself. These exercises with *non-artists* seem to support this. Torreano's explains his own approach as training the student:

> *'....to see three-dimensional things as two dimensional shapes in order to draw them on a flat piece of paper and have them appear to be three-dimensional'.* (Torreano, 2007, p.6)

The sketching together exercise with Gillian and Janet was most interesting and revealing, as it seemed that with next to no background in drawing, the women were able to transfer my perception, or a *shared experience* of perception, on to their own pages.

How and why children draw – and why don't adults?

The children's drawings are included as an endnote. The children were provided with sketchbooks and pencils, but given no instruction. Without anxiety they draw spontaneously, quickly, and with great enthusiasm: Edie describing and categorising as part of her exploring the shingle, and Doyle understanding the mechanics of his body, the skimming stone and the water ripples. Contemplative drawing versus a more *action-centred* approach!

There seems no hesitancy here with the *seeing.* Their respective perceptions are set down absolutely with clarity and efficiency of communication. Where the adults quite readily find the craft, with the children this seems to develop, like their handwriting, as control and familiarity with materials increases with practice.

Why, as we get older, do we so readily build up our craft skills, but seemingly change the way we *see?* Is the *seeing skill* of an artist something for the domain of children? An artist friend Colin recently joked: *'but artists are still children!'* (Duncan. 2010, personal communication) Certainly children relate well to artists because they still do draw and *see* the world *like them* – something we could call *participative perception.*

Drawing connects us to the world through perception, and field sketching can strengthen that link by deepening the participation in an *action-centred* and *interpretive* approach.

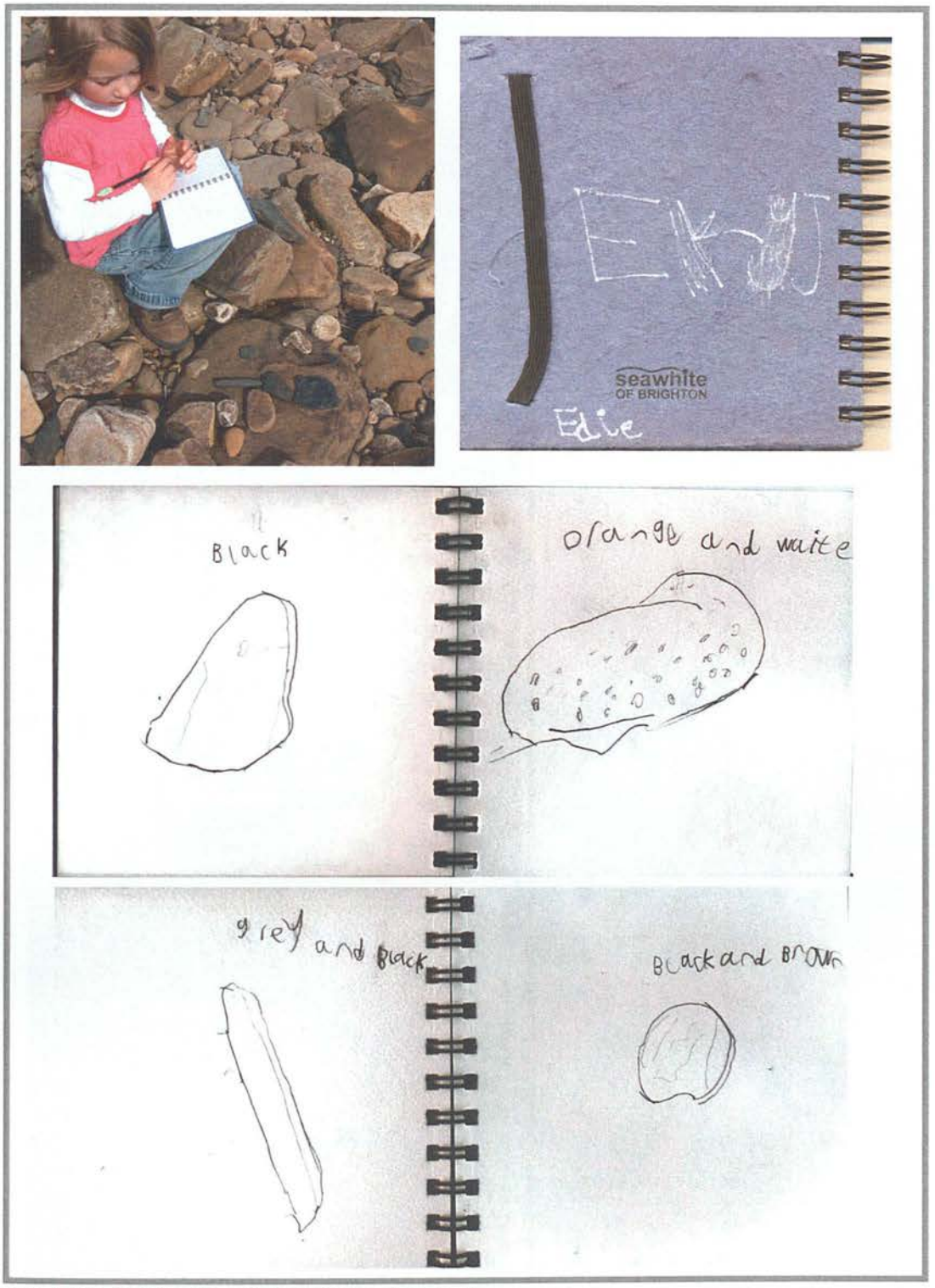


Fig. 4.22: Edie's descriptive stone sketches.
Drawn shapes and textures. Labelled colour.

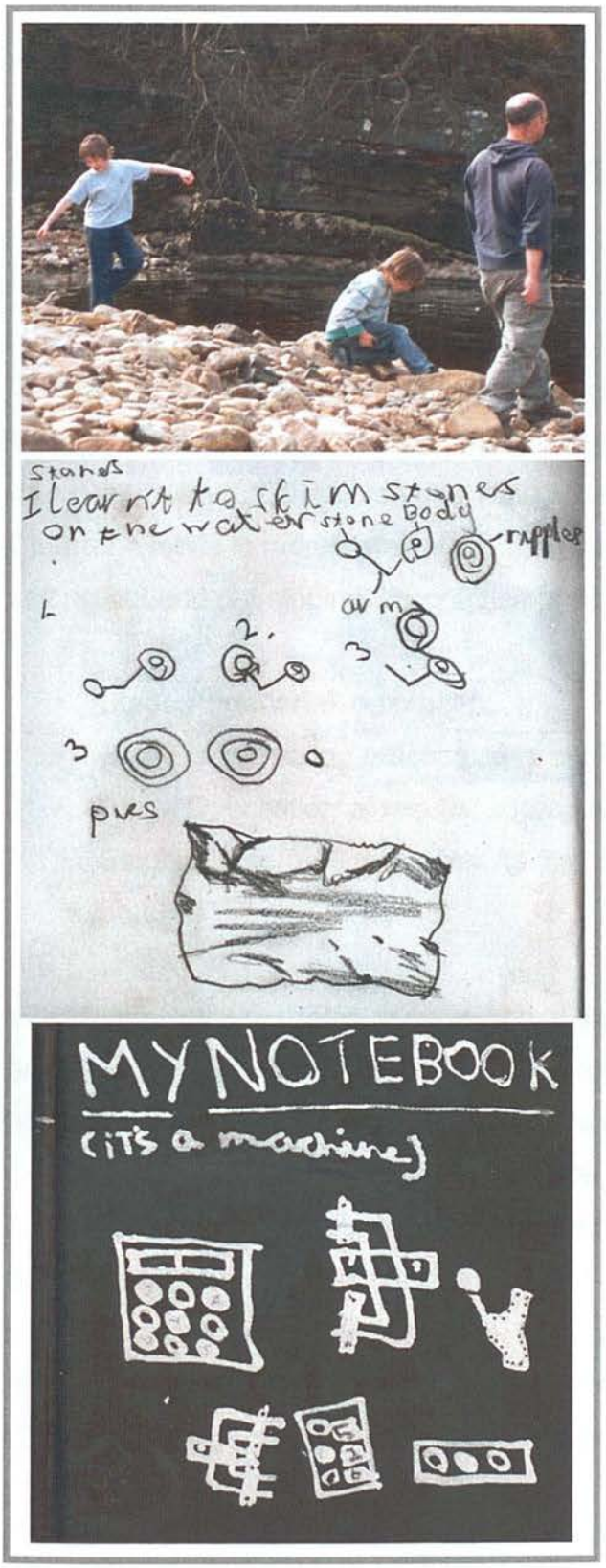


Fig. 4.23:
Doyle's *participative perception*, learning to skim stones.

Chapter 5 Methodology for preparing, sorting, and analysing data

Introduction

Chapter 2 set out the approach, research context and principles behind the method of reflection on practice. The *grounded theory* approach established a framework with three main stages: data collection, sorting task, and writing. Chapter 4 looks in more detail at the data collection and preparation, sorting, setting out and developing the practice principles:

- Stage A: undertaking practice
- Stage B: preparing practice case studies, or *data collection*
- Stage C: collation of results, *sorting task*
- Stage D: interpreting the results and developing integrated principles from practice

The chapter demonstrates aspects of this through illustration and example, with brief descriptions, where necessary. Examples of the form that the *practice observations*, and *integrated principles* take are included, to give an understanding of how they have been made, and show what is carried forwards for consideration at the next stage. The details and mechanics of what was done in terms of the *sorting task* are set out in the Appendices. The full version of the integrated principles, which are the principle theory developed from this thesis, are not included but will form the basis of future publication. (See Chapter 6, which provides a refined and summarised account.)

Undertaking practice

This section is research stage A.

Generating and using field sketches and related site notations is the subject of this thesis. A1 sets out examples of each of the main types and aspects of fieldwork undertaken in some detail, given the practical nature of the activities. A2 and A3 are outlined only in the table below: studio work develops the field sketches and associated visualisations for professional application, and (outwith the selected case studies) other practice has contributed to the thinking and understanding of the thesis, including professional work and artistic practice.

Sequence	Activity	Outputs
A1	Fieldwork: • Field sketching: walking and drawing • Survey and mapping • Descriptive drawing, capturing views, sequence and objects • Research observations • Landscape assessment • 'Dialogue' with clients and other specialists	Site notebooks, field sketches, other notation, photographs, memories of the place, the whole site visit experience, and people encountered
A2	Studio work: • LCA / LVIA • Design • Collaboration and discussion • Visualisation, illustration • Public consultation	Landscape description, sensitivities and opportunities for change, guidance, design principles, design options, sketch visualisations, finalised visualisations, photomontage
A3	On-going practice and experience: • Landscape architecture • Illustration commissions • Artistic exploration	An anecdotal understanding of the value of field sketching and visualisation; initial assumptions and criteria of 'usefulness'

Table 5.1: Reflection-on-practice stage A, undertaking practice.

A1 Fieldwork

The following examples include both case study projects and work and activities not written up as full case studies, where these illustrate a point particularly well. These demonstrate the typical stages of practice, with emphasis on a fuller range of practice undertaken over the last ten years.

Field sketching: walking and drawing

Fig. 5.1: Field sketching, Dales Scenery, walking and drawing.

The essential activities of field sketching are moving through a landscape and making drawings. Whether by car or on foot, moving to pre-determined viewpoints, or responding to the potential views on offer, the landscape is experienced in a broad sense, looking at and into, and from an *insider*

perspective looking out and about. Fieldwork takes time and field sketches take time.

These three studies from the Yorkshire Dales were done on two occasions. Without a programmatic brief they are following a thread of interest, whereby one visit leads on to future visits to look at the same place from a different perspective, and in increasing depth.

Fig. 5.2: Field sketch, Winterings overview, coloured sketch, A4.

Fig. 5.3: Field sketch, Winterings farms, waxoil pencil sketch, A4.

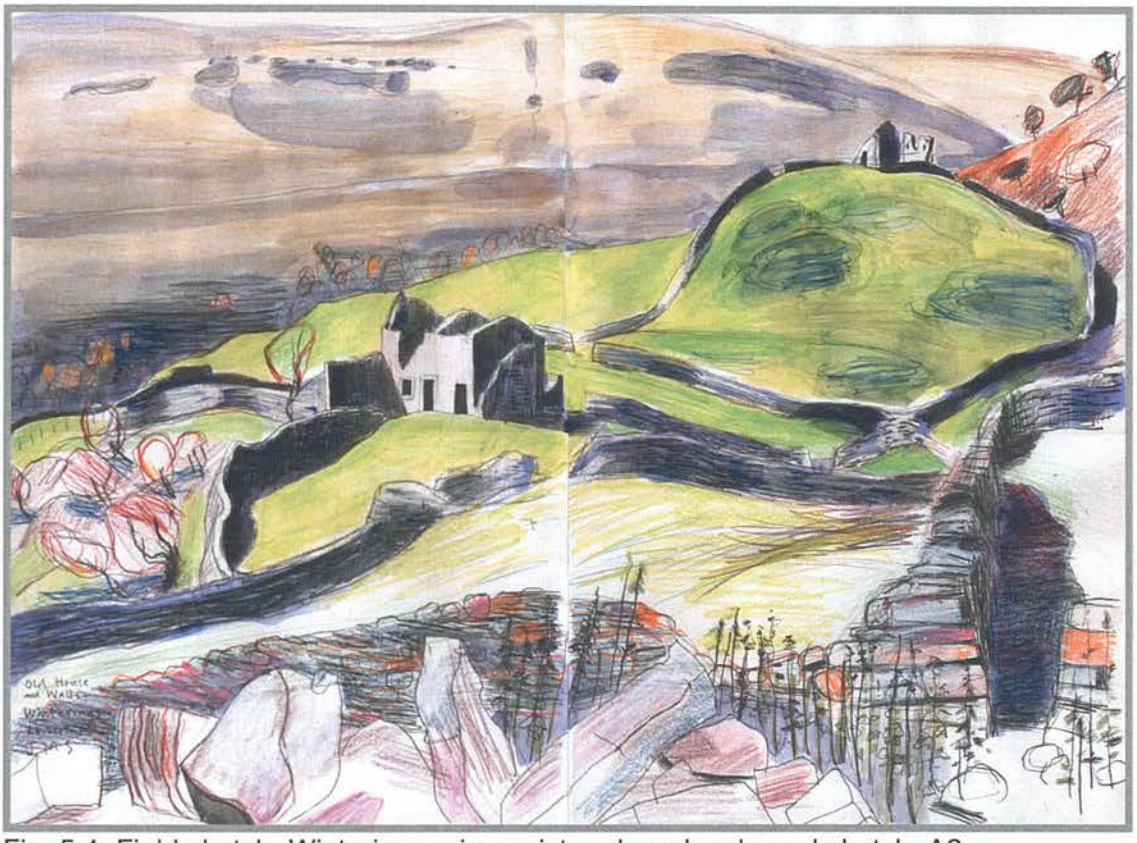


Fig. 5.4: Field sketch, Winterings ruin, resist and wash coloured sketch, A2.

In the first sketch a place has been found with exceptional visual qualities. The precipitous viewpoint at the top of the limestone scars above Winterings reveals an unusual pattern of fields and 'consumption walls', enclosure of marginal lands, hard won out of a rocky landscape. However, as well as being of great historic interest, the irregular and small scale fields, the scatter of isolated buildings, and the unusual features, such as the H-shaped bield (sheep shelter wall) create a pleasing composition.

Entering the settlement on a subsequent visit it is the emotive power of the ruinous buildings and walls that captures attention, and is the focus of study. The lower thumbnail sketch begins to make sense of how the walls allow the hummocky topography to be read. It is the interplay of the complex local landform and the complex field enclosures that contribute to the areas

landscape character, visual and scenic qualities; the beauty of the place, but the buildings carry a strong and immediate human story that stirs feelings.

The autumnal colours, and low twilight and shadows of the final study combine in a more articulated way with the already learned understanding of the lie of the land, the drystone walls and the ruins. Whilst a representative *natural* viewpoint, the image carries a heightened communicative power due to the attunement gained from previous work.

Survey and mapping

Technical topographic survey is not considered here. However principles of surveying the general layout and features of sites, and wider landscape settings is an activity undertaken as part of more general fieldwork. Surveying and mapping are both activities that the researcher has used in professional and artistic practice.

Surveying and mapping can serve several purposes: as a way of recording features on a site base plan, to make a more detailed record, force observation of the presence of features and their dimensions, orientate and relate different features spatially, describe views and orientations from sites, give an impression of what things are like in three dimensions.

The principal purpose for the researcher has been in a more general sense to get to know a place. The process of *mapping* provides a disciplined approach and process to making observations. The resulting map becomes a field note and record, but also has interest as a graphic representation in its own right. These have been inspiration for overview illustrations and artwork over the years.

The broad principles of establishing base lines and setting out dimensions both along and from these are used. However, unlike technical survey, which traditionally used chains or benchmarks, and measures, these surveys work always from site features and are dimensioned by pace and eye.

The following examples show a range of mappings made for different purposes:

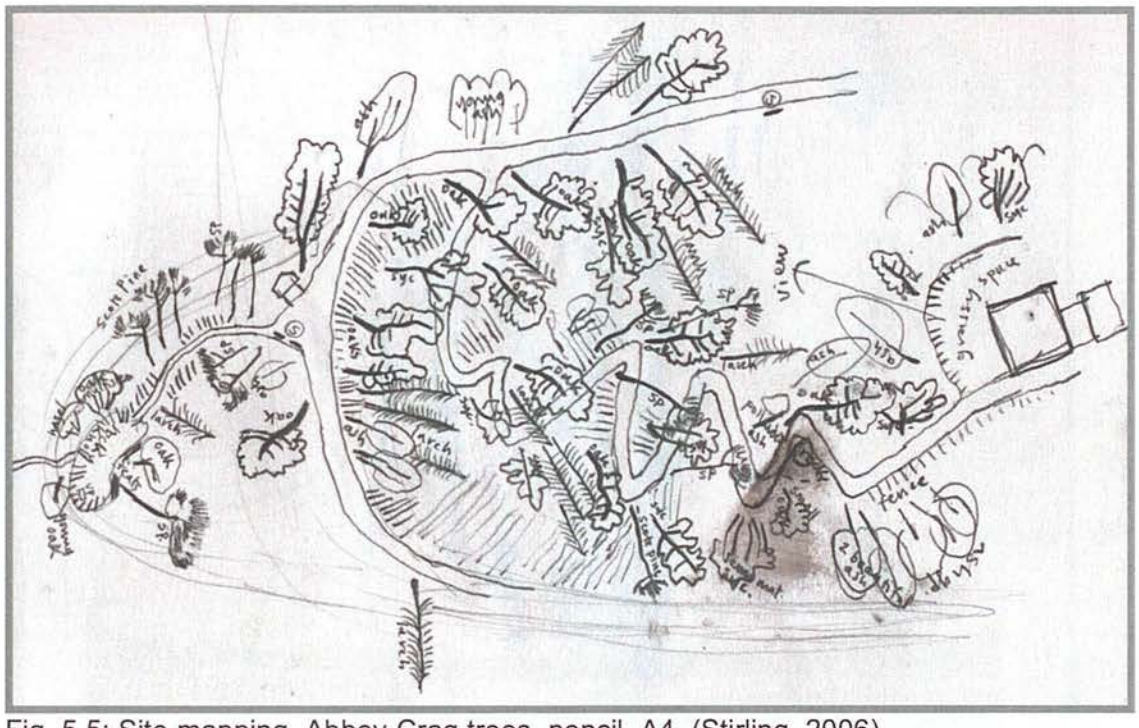


Fig. 5.5: Site mapping, Abbey Crag trees, pencil, A4. (Stirling, 2006)

Map made when walking, trees *plotted* in relation to path. To use in an illustrative map of woodland walks. Mapping helped to develop the visual from a user's perspective; orientation relating to the experience of being there.

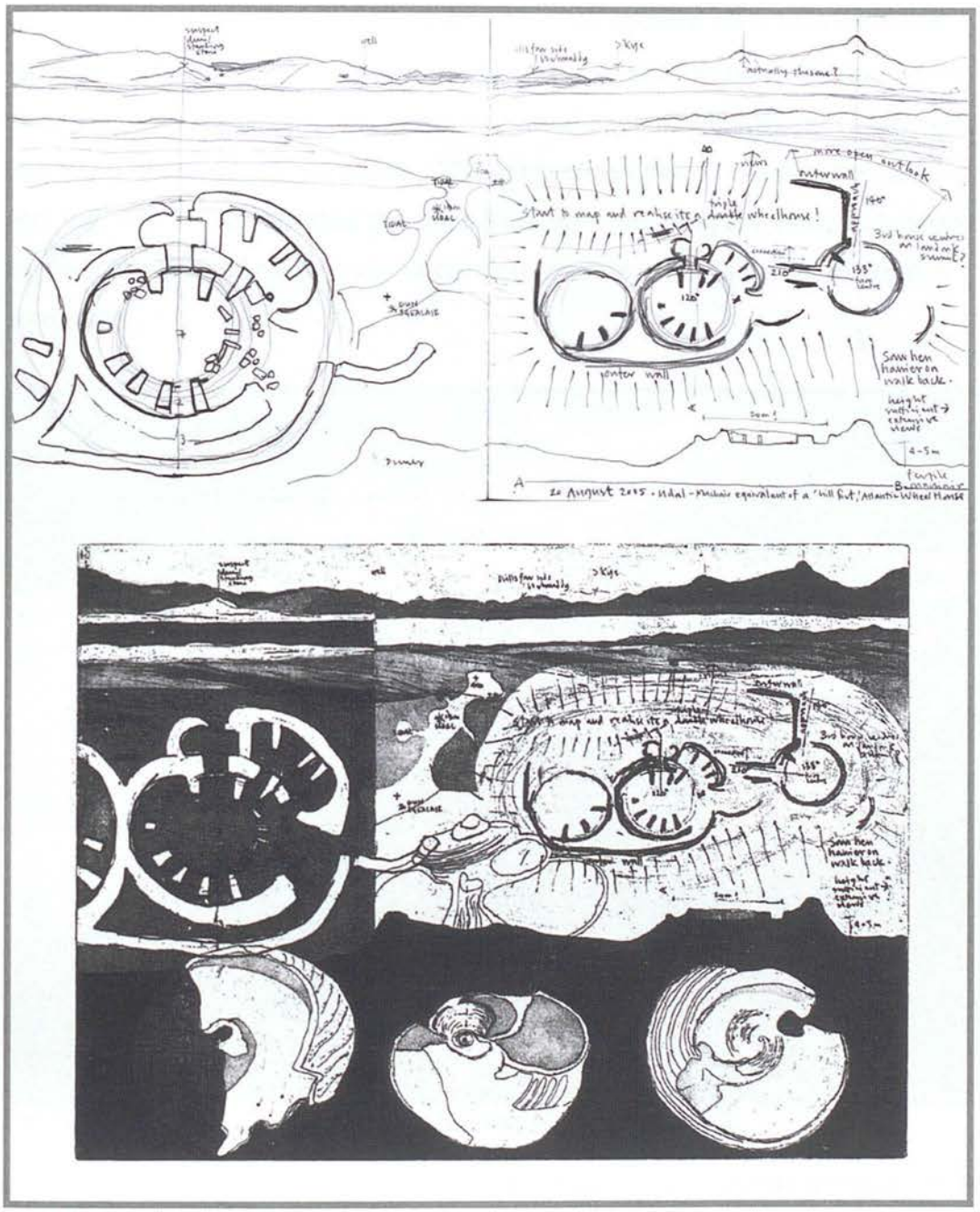


Fig. 5.6
Above: site mapping, Udal Wheelhouse, pencil sketch, A4. (North Uist, 2005)
Below: etching from site maps, Udal Wheelhouse, A4.

The left page of the sketchbook was the starting point, discerning the form of an Atlantic wheelhouse, through mapping the more and less distinct structures and, as features, such as the external door and threshold became apparent, taking

bearings on external landscape features, other ancient sites and landmark summits. The map was drawn whilst pacing the proportions. Extending the map to the site, including a context map, and section were all part of my own spiralling discovery of the place. The sketchbook page became the basis of an etching, which incorporated the shell fragments echoing the sense of movement in the form, as well as the way of coming to understand a *whole* through a *fragment*.

Fig. 5.7: Mapping at the Hill o' Many Stanes. (Caithness, 2006)

Mapping at the Hill O' Many Stanes was a way to make sense of the multiple alignments. In an initial session bearings were taken from the main rows. Working from a small scale OS, these were related to peaks of the Cairngorms and hill fort summits to the east. These only became visible on the final day on site. As with the wheelhouse, the mapping process revealed features, site layout and wider alignments.

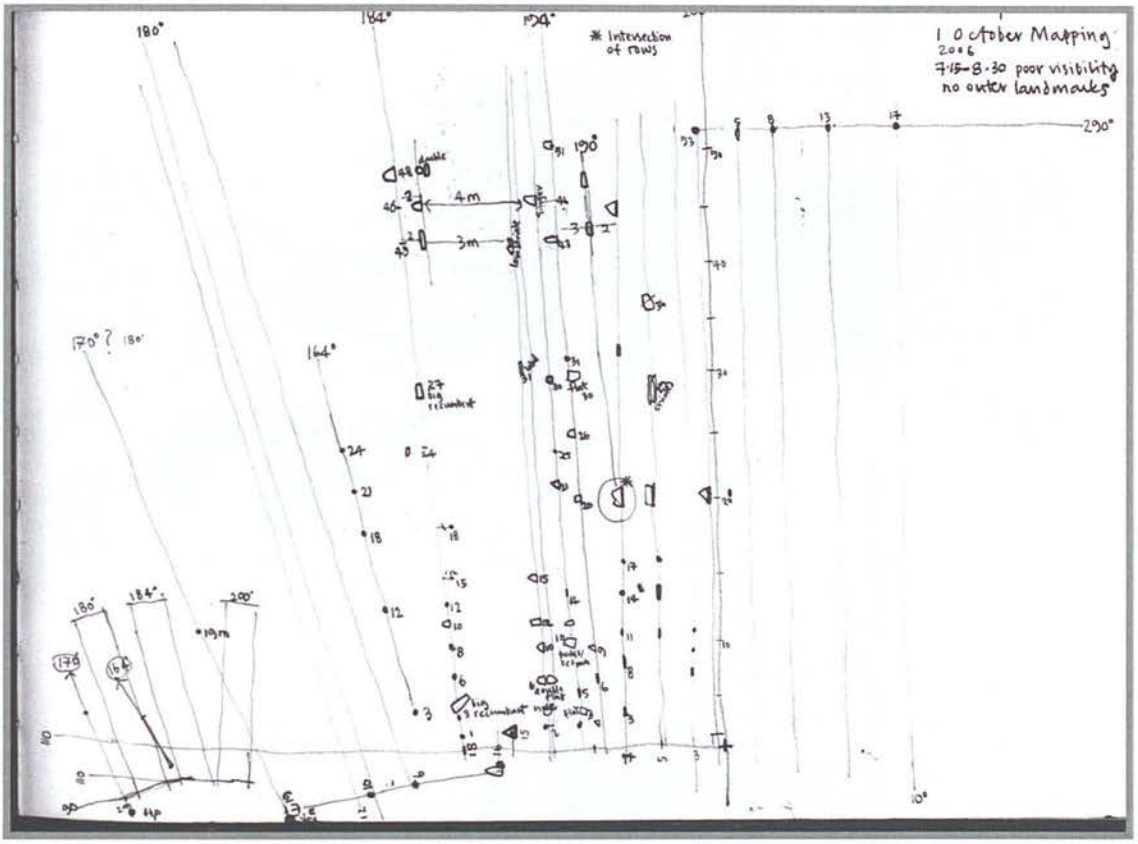


Fig. 5.8: Hand drawn and body-scaled map from the Hill o' Many Stanes, A4.

Mappings made of archaeological sites have been to understand them better, trying to reveal possible visual and spatial intentions that have been lost to certain knowledge. Also it provides a way of spending time to take a place in.

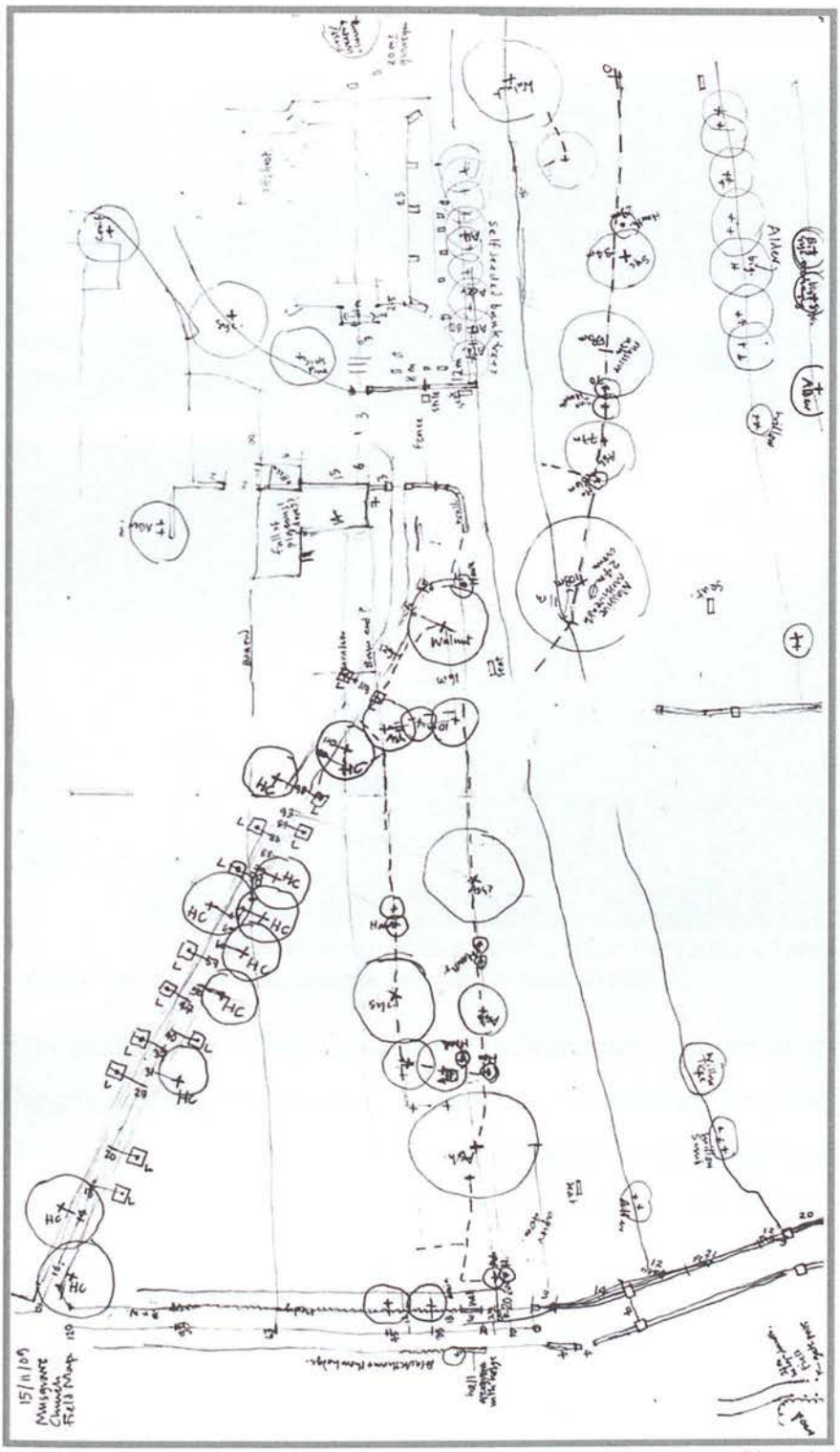


Fig. 5.9: Hand drawn and body-scaled map from Musgrave Church Field, A3. (Eden Valley, 2010)

A paced survey of a site prepared as a base for an overview illustration.

Descriptive drawing, capturing views, sequence and objects

Fig. 5.10: Descriptive drawing, colour wash sketch capturing changing light and weather, above Sollas, double A4. (North Uist, 2006)

The sketch is not descriptive of a fixed view, and sought for *best* moment, as is the photograph, but represents aspects of sequence; the landscape experienced through time. Fieldwork inhabits landscape dynamically by embedding movement in the perception of landscape, and by occupying landscapes for the duration of the site visit. The field sketch focuses attention more specifically, but again endures. As we are active in landscapes changing conditions often go un-noticed, but once we stop, even for tens of minutes, changes become more apparent. Even normally imperceptible change is noticed. In landscapes characterised by change, tidal areas, or such as the Outer Hebrides, where chasing Atlantic weather blows rain showers, sun and shadows in minutes and

hours, rather than days, sketching builds in time to see the changes, and to describe the *best* visual relationships. Suprises happen: in this study, the sketch was completed and kit packed away just as St Kilda appeared looming mirage-like through the mists on the horizon, a detail that might have been missed but makes the view and captures the imagination. Views are intrinsically temporal and the field sketch captures that. Serial views, built up as a landscape is moved through, or over periods of time, also deal with change. Our familiarity, associations and reflections on places also become apparent through time.

Research observations

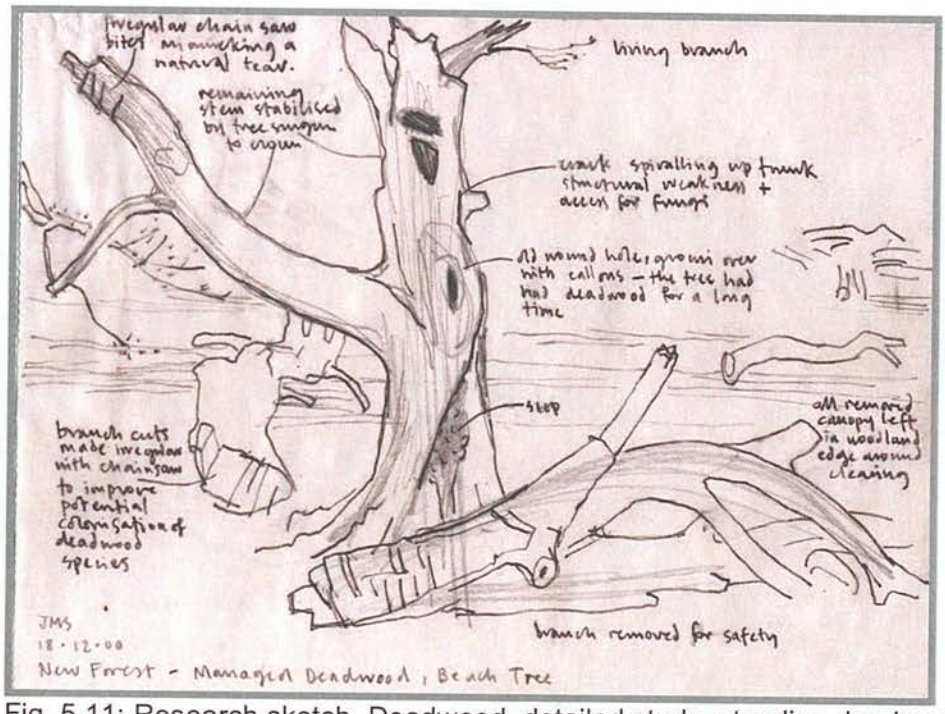


Fig. 5.11: Research sketch, Deadwood, detailed study, standing deadwood, A4.

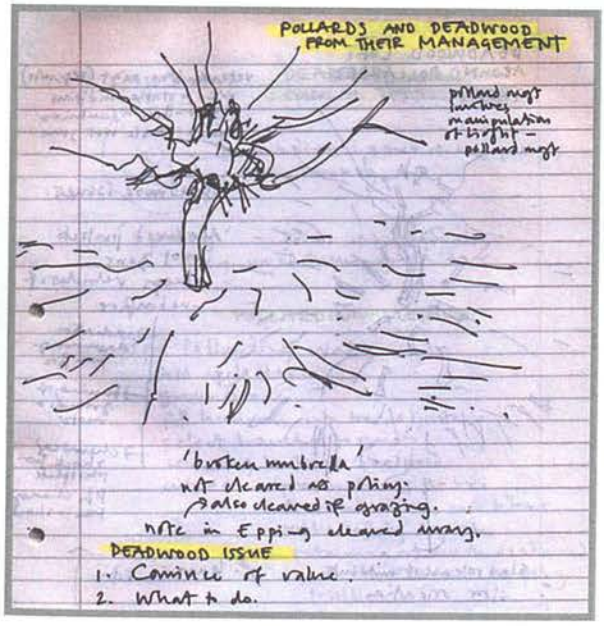


Fig. 5.12: Research sketch, Deadwood, *'Hornbeam Umbrella'*, biro-type pen, with highlighter, A4.

The field sketch and notations acted as an interactive medium in site discussions, helping to gather, exchange, and clarify information. Several quick sketches were made of the same subject as further details emerged through conversation. The *ghost* of another sketch can be seen coming through the notebook page. The highlighter pen was applied some hours after the visit to add an initial layer of organisation to the information gathered.

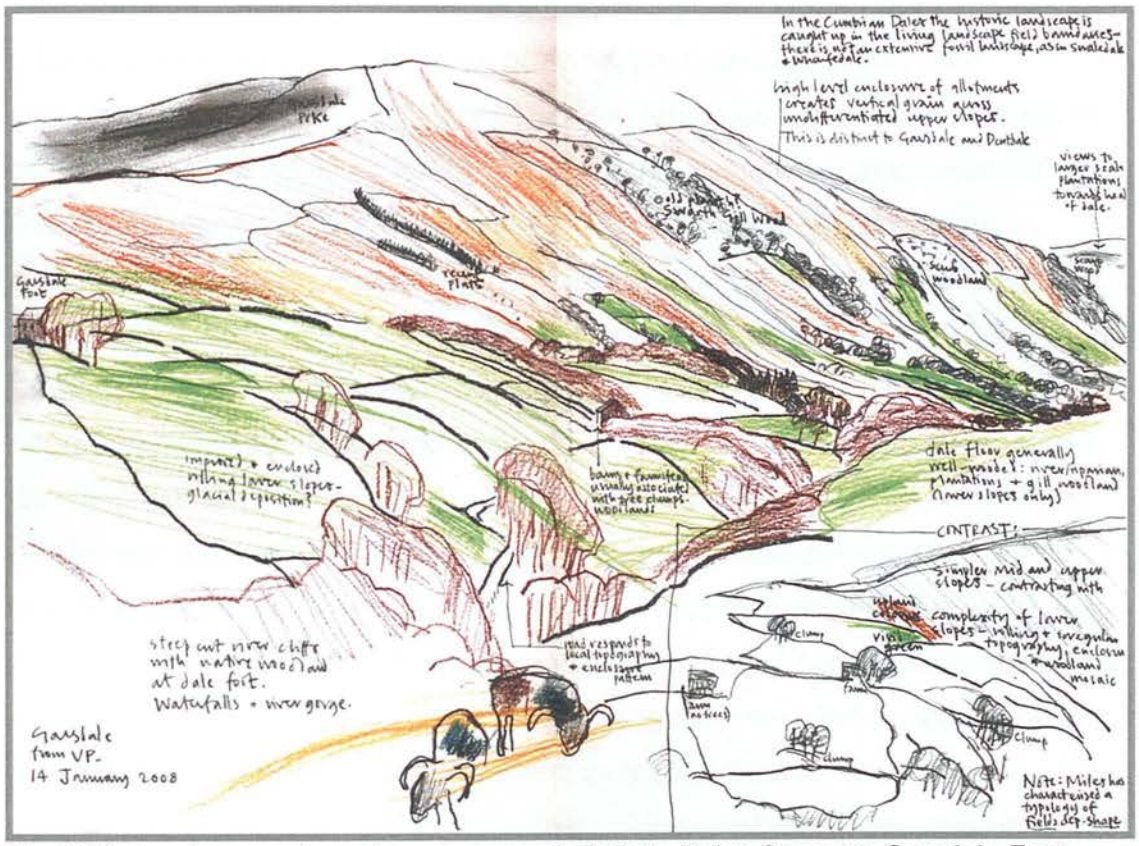


Fig. 5.13: Landscape character assessment sketch, Dales Scenery, Garsdale Foot, coloured pencil, A4.

This is an almost archetypal field sketch undertaken for landscape character assessment. The sketch is from an iconic viewpoint. There are four layers of information and analysis, the main drawing, the thumbnail sketch, the annotations, and notes from a conversation with a colleague after returning to the office. These could be further subdivided in to the sequential layers of mark making, or hierarchy of text annotation. The main drawing uses colour descriptively, but also analytically. By depicting landscape characteristics and features in specific colours the local landscape character types are made explicit through the drawing: the enclosed fields, the pattern of woodland, trees, and scrub, the high allotments, and exposed summits. The thumbnail isolates two key contrasting visual qualities, which underpin the scenic qualities, and their constituent elements: the rolling enclosed farmland with trees demarcating buildings, and the simpler upper slopes. The drawings show and imply information, but the annotations make the meaning and communication purpose absolutely explicit. In the process of sketching they are often a last inclusion, gathering further information, identifying questions for later research and verification, prompts for added explanation, simple labelling, and delivering the *'so this is what I mean'* points of the analysis.

Dialogue with clients and other specialists

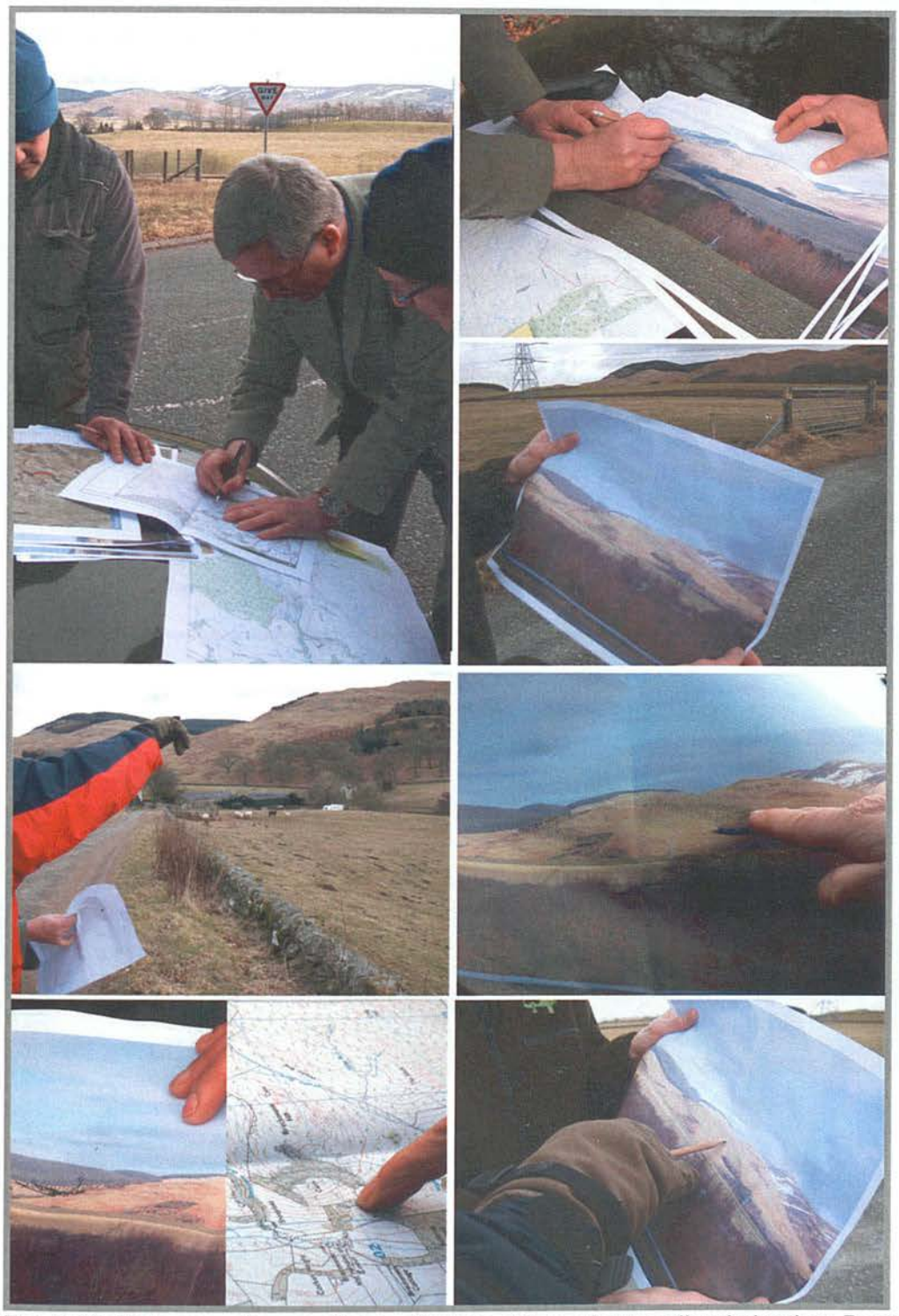


Fig. 5.14: Dialogue, site meeting to discuss options for woodland planting, Beattock. (Dumfries and Galloway, 2010)

Within the interaction of a site discussion the 'pointing out' gestures of the body and the drawing process become interchangeable. Picking up the pencil or pen and annotating directly on to plans and photographs is uninhibited, as an extension of pointing at the landscape and orientating others around by way of landmarks.

All parties contribute to the design and it evolves as an unfolding understanding of the different perspectives: the pragmatic and the eye for beauty. However, the lines of interest become more blurred on site and ideas are tested and resolved more readily. In face to face dialogue there is a search for common ground, where interpreting abstract information without the reference to reality, can entrench assumed / presumed positions. These tend to be constructed when interpreting rather than observing.

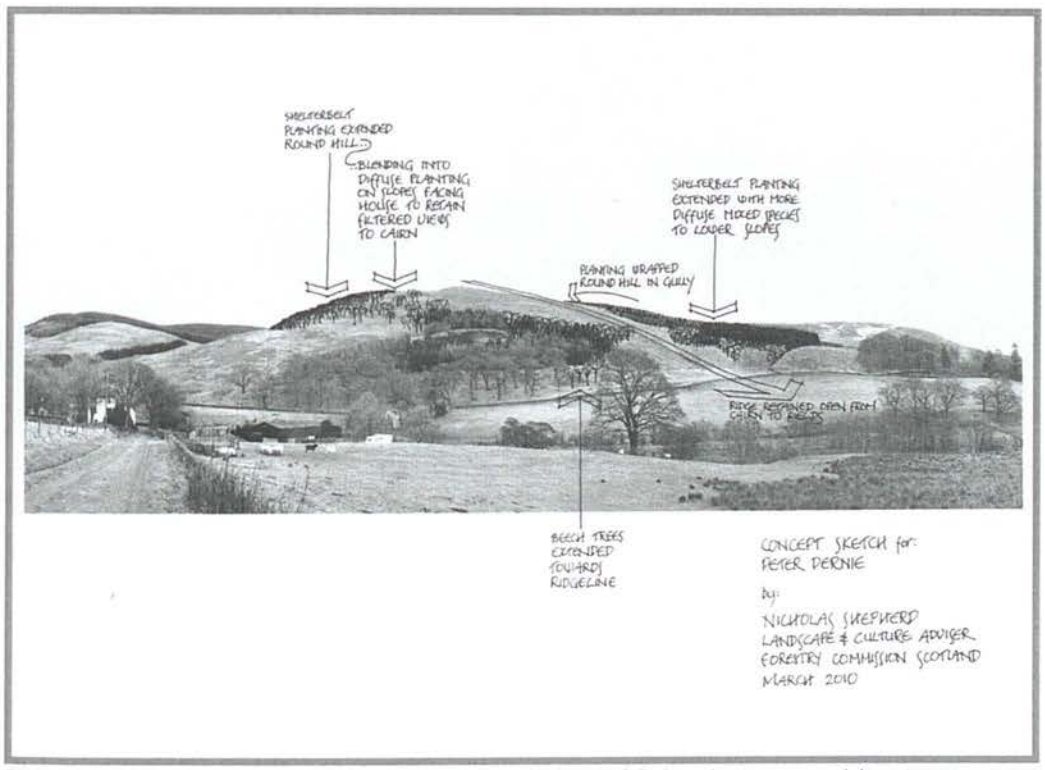


Fig. 5.15: Photo-sketch proposal prepared by FCS landscape architect
Copyright: Nicholas Shepherd / FCS

The final sketch-photomontage was requested by the client to show his family, who had been unconvinced by his verbalised ideas in terms of how they would look. Whilst a relaxed and spontaneous visual, this was undertaken after the site visit, summarising the final outcome of the discussions, and formalising the visual representation into something that could clearly communicate the key ideas to those not there. The sketchy quality means the ideas remain open to change.

Preparing practice case studies for analysis, and *data collection*

This section is research stage B.

Preparing practice case studies has been the core research activity of this thesis, reflection on practice. B1 sets out the initial categorisation of attributes for the case studies. B2 illustrates the initial *coding* and categorisation of the sketches and visuals. B3 sets out the pro forma outline for writing up the case studies, and describes the writing process in terms of generating reflection on original activities. B4 sets out the pro forma of each case study presented as outline in Chapter 3.

Sequence	Activity	Outputs
B1	Initial categorisation of case study attributes	Selected case study projects and attributes
B2	Initial *coding* of case studies • Selection of images, scanning, Photoshop • Organisation by indexing image files • Organising the key points per image and ordering • Files to Word document	Categorisation of practice activities: folder with indexed image files
B3	*Reflection:* writing up the case practice case studies and outlines: • Background description. • Informal description of 'what I did' • Generalities of what was achieved	Practice case study: description of place, project team and involvement by others, brief, problems encountered, project stages and specific activities, descriptive text and illustrations of sketches, visuals and photographs
B4	Making formal practice observations, based on each specific project activity	List of numbered formal practice observations, set out as *primary data*

Table 5.2: Reflection-on-practice stage B, preparing case studies.

B1 Initial categorisation of case study attributes

The practice case studies were selected to cover a range of landscapes, and a sufficient representative sample to make observations from. See Chapter 3, Introduction, Table 3.1: Summary table, criteria for the selection of case studies. Further to this general spread and as summarised in the case study outlines, the following tables show further detail with respect to the case study attributes:

X Key quality / main purpose

x Component feature, additional aspect / not main purpose

Next pages:

Case study attributes	Selected case studies						
	Deadwood	Rum	Iuvanum	Loch Torridon	Flora of the Fells	Loch Ruel	Dales Scenery
Detail activities undertaken							
Fieldwork / site visits							
Lone fieldwork / site visit	X	X	X	X	X		X
Accompanied site visit	X	X				X	
Interpreting site notes	X	x	x			X	
Duration of fieldwork							
Single day or less				X		X	
Several single days, diff. places	X				X		X
1 – 3 weeks		X	X				
Ongoing studies							X
Research / visual survey							
Fixed viewpoints – pre-set			X			X	
Fixed viewpoints – guided	X	x				x	
Fixed viewpoints – representative	X	X	x	X			X
Fixed viewpoints – iconic	x	x			X		x
Fixed viewpoints – visual receptors		X				X	
Sequential views – place			x	X	X		x
Sequential views – time			X		X	X	x
Visual analysis							
Spatial structure, intervisibility, orientation		X	X	x			
Visual qualities and relationships		X	X	x	x	x	x
Qualitative description	X	X	X	X	X	X	X
Landscape assessment							
Landscape character assessment		X	x	x	x		X
LVIA		X				X	
Scenic, wildness, appreciation		X					X
Design							
Scope for ...woodland / trestles		X				X	
Siting and design principles / 'landscape fit'		X				X	
Constraints mapping		X					
Sketch design options		X				X	
Detail proposals		X				X	
Visualisations							
Sketch visuals to test design ideas		X				X	
Sketch visuals, public consultations		X					X
Diagrams, distribution maps, plans		X				X	
Generic / typical landscapes	X	X					X
'Natural' views – representative		X	X			X	X
'Natural' views – manipulated					X		
Composite images	X			x	X		
Overviews, axonometrics		x		X			X

Case study attributes	Selected case studies						
	Deadwood	Rum	Iuvanum	Loch Torridon	Flora of the Fells	Loch Ruel	Dales Scenery
Field notations & sketches							
Types of field notations							
Notes and sketch-diagrams	X	x	x			X	
Annotations on sketches	X	X	x		X	x	X
Sketchbook: quick pencil sketches	x	X	x	X	X	X	X
Sketchbook: pencil studies (1 hr+)			X				X
Sketchbook: pencil, colour wash, mixed media studies (0.5 – 2.5 hr)	X		X	X			x
Roles of field sketches							
Information gathering: visual, other	X	X				X	
Description of place qualitatively	X	X	X	X	X		X
Analysis and assessment		X	X			X	X
Interactive medium in dialogue	X	X				X	
Exchange and testing design ideas		X				X	
Build holistic understanding of landscape and its processes		X	X			X	X
Visualisations							
Types of visualisations							
Field sketch – as is			X				X
Reworked sketch - minimal		X				X	X
Reworked sketch - Photoshop		X				X	
'Natural' view illustration – as is		X	X			X	
'Natural' view - manipulated					X		
Composite images	X				X		
Multiple perspectives				X	X		
Combination: perspectives, maps, diagram, (variation on orthography)		X			x	X	
Generic / typical landscape	X	X					X
Diagrams		x	X				
Mapping, plans		X	x		X		
Overviews and axonometric	x	x		X			X
Roles of visualisations							
Illustration, qualitative description, of existing scenarios		X	X		X	X	X
Illustration, qualitative description, of future scenarios		X				X	
Interpretation: reveal, relate, provoke	X			X	X		
Celebration	X	x	X	X	X		X
Engagement and participation in decisions about landscape change	X	X				X	X
Reading historic landscapes			X				

Case study attributes	Selected case studies						
	Deadwood	Rum	Iuvanum	Loch Torridon	Flora of the Fells	Loch Ruel	Dales Scenery
Landscape characteristics expressed							
Topography							
Mountains and uplands	x	X	X	X	X		x
Glens and dales	X	X					X
Lowlands	X						
Coastal – exposed		X					
Coastal – sea loch, inter-tidal		x		X		X	
Land cover							
Forests and woodland	X	X					
Vegetation mosaics - herbage		x			X		
Land use pattern							
Field and woodland mosaics			X			x	
Farmland – field enclosure, pattern			X				X
Estate land – parkland and policies		x					
Relict / historic land use	x	X					X
Settlement pattern							
Villages in the landscape			X				
Dispersed settlement			X				
Isolated settlement				X		x	
Relict / historic settlement		X	X				
Landscape qualities expressed							
Temporal							
Changing light and weather		x	X	x	X		
Tide						X	
Seasonality, effects: colour, snow	x				x		X
Value, public perception							
Wildness		X			X		
'Apparent naturalness'	x					X	
Cultural and historic landscapes			X				X
Scenic qualities		x		x	x		X

Table 5.5: Case study attributes, landscape characteristics and landscape qualities

B2 Initial *coding* of case studies

Coding and categorisation of field sketches and visuals was undertaken through a series of activities. The organisational aspects of bringing the images together generated the structure of the case studies.

Selection of images, scanning and Photoshop

The starting point in each case was archived fieldwork: sketchbooks, site notebooks, and photographic surveys. Portfolios of developmental work and finished visualisations, reports and design projects were also reviewed. Looking back at these, after in some cases several years, stimulated recollections of the places visited, the other people involved, and the type of work. A suprising aspect was the varied approaches different projects took, and how there was a retrospective understanding of the prompts for this that I hadn't been aware of at the time.

A selection of images was scanned, judging those that seemed most appropriate in predicted ways, and taking in as full a range of attributes as possible. Refinement of the selection was ongoing, and I constantly dipped back in to the original source books and portfolios as I developed the case studies further. Many images weren't used in the end. The process of sifting and sorting images contributed to my thinking, and made connections within and across projects. The images that were used represented a distillation of this thinking: generally of relevance with respect to the initial anecdotal benefits / initial propositions of the thesis, and artistically interesting also.

Photoshop was a useful tool in organising the images, allowing them to be resized and shown in specific ways. Care was taken with tone and colour, to ensure that any adjustments did not detract from meaning. The Loch Torridon

case study was a particular example of how images were deliberately *sampled* to demonstrate graphic qualities: shown both in their entirety to demonstrate compositional aspects, and at size details to show the quality of the mark making.

Organisation by indexing image files

It was daunting to consider how all the information from a single project could be reviewed and *reflected on* with any level of consistency, and also then to relate the approaches to all the projects in some consistent way. A pragmatic solution was taken to developing a systematic indexing of image files, applied to all.

Index of practise

Project: Loch Ruel, Proposal for Oyster Trestles
LR

Dates: 2007

Practice: Landscape and Visual Impact Assessment, and Design

Sources:
1 Site Sketchbook
2 Site Photographs
3 Design Development
4 Supporting Landscape Report – Landscape and Visual Assessment, Design Options
5 Landscape Proposal – Design Proposal

Viewpoints:
1 Tighnabruaich Viewpoint
2 Meckane's Grave
3 Colintraive coast road, by Rubha Breac and Tigh-na-Creige
4 Above Kinlochruel, across loch
5 Above Kinlochruel, up loch
6 Salthouse Point mudflat
7 Plan views

File name: Project-Source/Sequence-Viewpoint,Subject

1 Index for Site Sketchbook

File reference	Subject / title	View point	Medium
LR-101-01	Full Tide	Tighnabruaich VP	4B pencil
LR-102-02	Down Sea Loch	Meckane's Grave	4B pencil
LR-103-01	Ebb Tide	Tighnabruaich VP	4B pencil
LR-104-04	Tide Ebb 1	Above Kinlochruel, across loch	Soluble soft pencil
LR-105-04	Tide Ebb 2	Above Kinlochruel, across loch	Soluble soft pencil
LR-106-05	Tide Ebb 3	Above Kinlochruel, up loch	Soluble soft pencil
LR-107-03	Tide Flow	Colintraive coast road	Soluble soft pencil

2 Site photographs

File reference	Subject / title	View point	Medium all photographs
LR-201-01	Tide Ebb Flow Forms, Up Loch	Tighnabruaich VP	
LR-202-01	Tide Ebb, Salthouse Point	Tighnabruaich VP	

Fig. 5.16: Organising images by indexing, example, Loch Ruel.

Organising key points per image and ordering

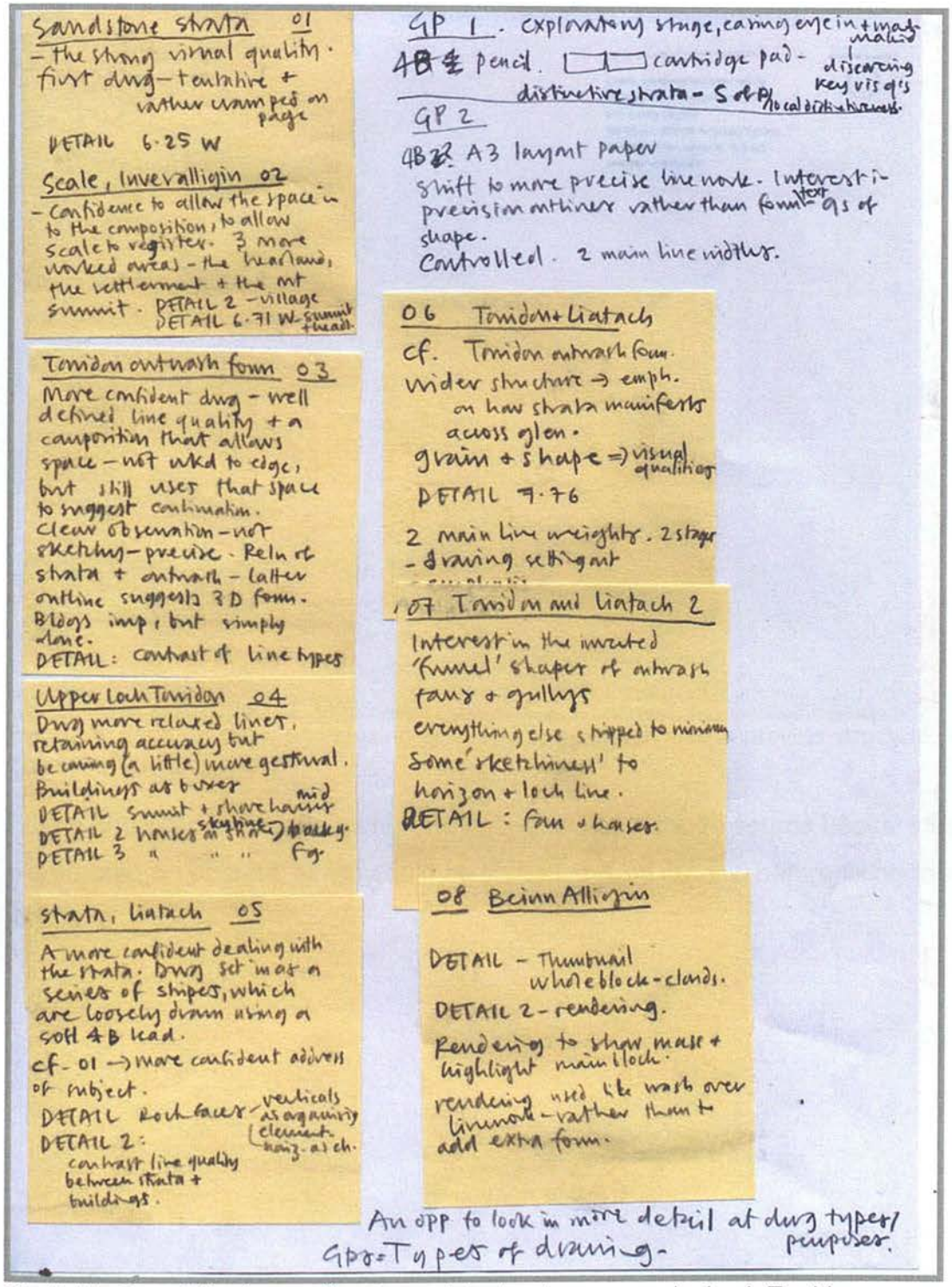


Fig. 5.17: Organising image files to provide structure, example, Loch Torridon.

Organising images: example, Loch Torridon, organising image files to provide structure

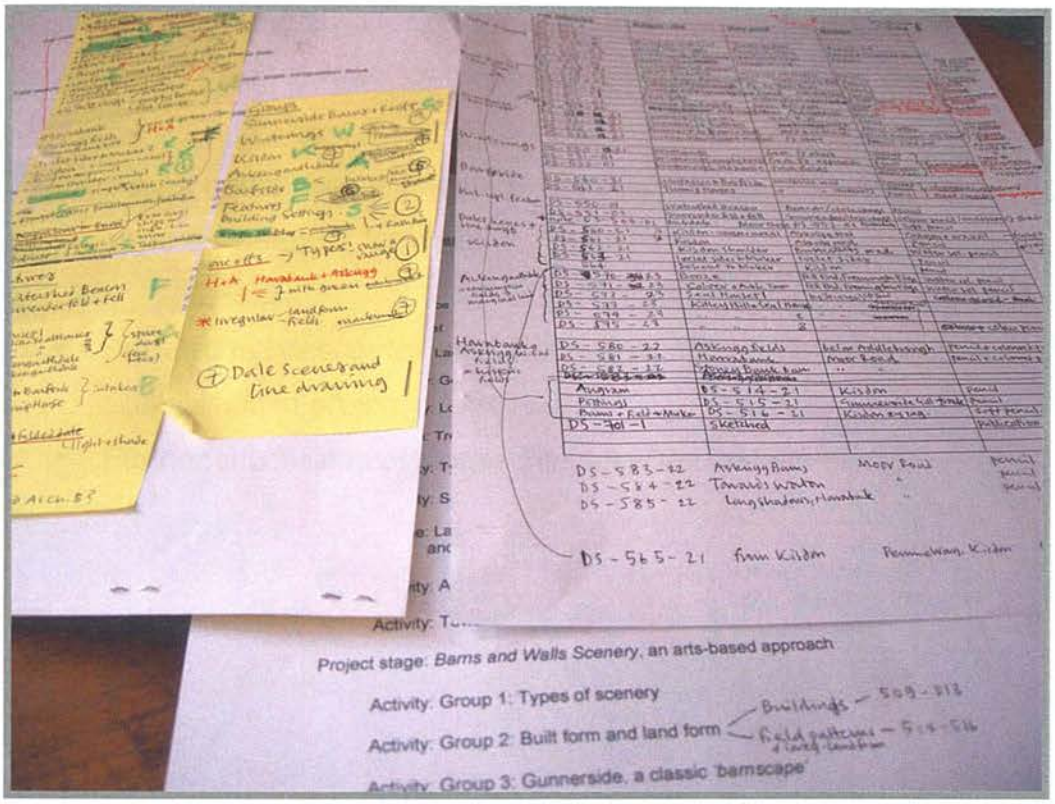


Fig. 5.18: Iteration between indexing and organising image files to provide structure, example, Dales Scenery.

Sitting and scanning work, using Photoshop, sifting through source books: ideas were noted on post-its, which could be shifted around readily, before fixing the structure.

Import files to Word document

All images were prepared for presentation in a standard Word document. This decision was taken to facilitate a consistent and pragmatic approach.

The structure of the case studies was established, using the images, on a pro forma, used as the basis for writing:

- Background description: the place, brief and problems encountered.
- Subdivision of project into stages.
- Further subdivision of stages into activities undertaken.

B3 *Reflection*: writing up the practice case studies and outlines

Writing up the practice case studies, more than any other aspect of the research activities, initiated and generated the reflective process in a conscious way. Whilst there were already some ideas and level of awareness regarding what various projects had involved and why different aspects mattered, in actually setting out to write this down much more came to the surface and became articulated. Furthermore, progressing through the case studies, attunement to *being reflective* also increased. This had the benefit of seeming to go deeper, but the disadvantage of producing more information than straight forwards to process.

Chapter 2 sets out the reflexive approach of describing *'what I did' and 'why important'.* It introduces the use of an informal and conversational process of written description, a talking to oneself, in an attempt to recover the *perceptual experiences* of practice.

The case studies each cover the background description for each project, these informal descriptions of what was done and why, and the generalities of what was achieved. The projects are presented chronologically. Each case study is presented in one or more sections, which look at different geographical areas or stages of the projects, and within each of these strands of specific activity. The structure for the case studies is broadly:

- Background to the project / commission*.
    - Description of the place and visual qualities.
    - Summary of the professional brief and problems posed by the subject.

- Within each project stage:

- Further breakdown to specific activities.
- Descriptive outline of practice areas; 'what I did'.
- Illustrations of sample field sketches and other imagery
- Informal commentary on: the roles of field sketching and sketch to final visuals; their combinations with maps and text; other fieldwork notation; collaborations.

Some differences arose as the case studies were developed, to deal with the specifics, and changing significances of sketching and visualisation in projects. However, the approach remained similar.

Note*: The project briefs and outcomes with respect to them are provided as background and context, but are not main considerations in this study. The commentary provided on the illustrations is important.

The resulting written up case studies had been intended to be included in the main thesis, but in part due to their size, and in part as their role became understood as *the experiment* in itself, they are presented the Appendices. The case study summary outlines are presented in Chapter 3.

B4 Making formal practice observations

Each case study was reviewed at the end to draw out a list of more formal observations. There was a developing awareness of how the reflective process was working and the sorts of anecdotal observations that it was generating. Whilst written informally in all cases, the case studies became more formalised as I progressed through them, with some of the statements becoming more processed. The stage of making more formal observations at the end of writing the case studies was an opportunity to re-establish consistency of approach.

This sort of alternation between informal and formal approaches, more intuitive, and then drawing together something more intellectualised and rationalised, became a sort of cycle within the research activity. To some degree it parallels the process of field sketching in itself, which is both spontaneous and more deliberately searching in turns.

In writing the practice observations they were sometimes a formalised reiteration of the case study text and, sometimes, new or developed thinking. The stage was allowed to be repetitive, detailed, tangential, in the knowledge that the observations would be further sorted and rationalised.

The outcome from each case study is a list of practice observations. These findings from the reflection on practice bring an additional level of analysis to the commentary. The practice observations are effectively *the primary data* that have arisen from the experimental stage of reflecting on the practice case studies.

Case study text
At this stage of my site visits I am not familiar with the spatial structure, have not looked down in to Glen Harris, or seen up the great depths of the Atlantic Corries. As such both these early sketches lack spatial depth. Foreknowledge might have resulted in further emphasis on the line quality of the study, to achieve better separation of the mountain elements.
Relevant practice observation texts
Observation 2: *... without movement around, or foreknowledge, landscapes can appear 'flat' and lacking recessional depth.* *Observation 4:* *Dull light, or a poor choice of viewpoint, can 'flatten' the recessional depth of landscapes.*

Table 5.6: Making formal practice observations: sample texts from Rum

Collation of results, *sorting tasks*

This section is research stage C.

Collating the results, or the *sorting task,* was undertaken in a practical way, whereby a paper-based *database* was developed through several stages. The aim was to strip fundamental *how to do* and *why important* principles out of the numerous formalised practice observations - in other words, to *extract the general out of the specific.* This required grouping similar statements within *core categories*.

The practical approach to the *sorting task* evolved, as the attributes that enabled grouping were only understood through a process of distillation. These attributes could not have been entirely predicted to facilitate advance planning of a form to log attributes, as would have been required in using, for example, a card index system, matrices, or digital data base. Human judgements were also relied on to interpret multi-facetted statements, which made any automation difficult. The approach was also well suited to the researcher's preference and facility with visual categorisations. The texts were essentially treated first as visual components, and at the final re-writing stage D (Chapter 5), again as text.

The origin of each observation was of interest in terms of auditing and referencing back to source work. C1 shows how each practice observation was tagged with colour *coding*. Then, illustrated with photographs in C2, similar statements were grouped and each practice observation was disassociated from its original context. C3 shows how the practice observations were *given shape* by regrouping, firstly in broad stages, and then subgroups, summarised in Table 4.8: *Core categories*, which groups the practice observations.

Sequence	Activity	Outputs
C1	Code the practice observation sheets and indexes: • Print out on card • Colour-code each, per project activity	Colour-coded reference index sheet and individual practice observations
C2	Disassociating practice observations from projects: • Cut up sheets in to single observations • Collect together individual practice observations	Box of practice observations, with specific practice context removed
C3	Categorisation: group practise observations in stages: • Broad stages within the process of undertaking and using field sketches, and representing landscapes • Sub groups with different aspects, types of, or detail activities for each stage • Annotate sheets to reflect grouping • Rationalise groups of practice observations	Grouped practice observations: key themes / *core categories*

Table 5.7: Reflection-on-practice stage C, *sorting task,* collation of results.

C1 Code the practice observation sheets and indexes

Colour coding on printed card

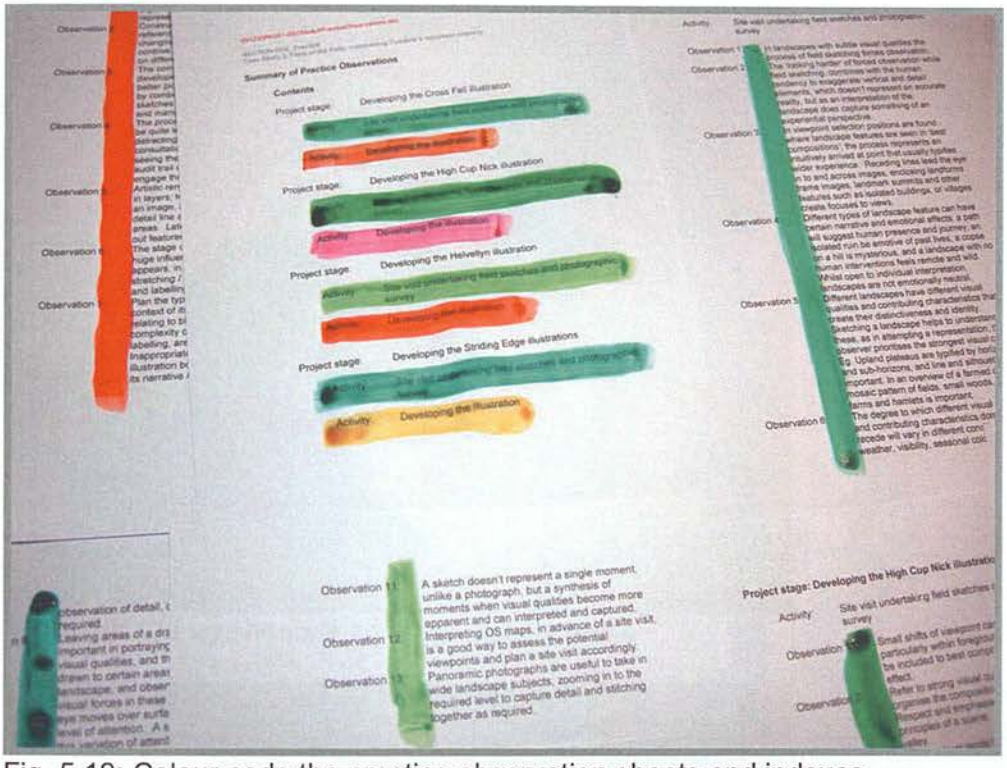


Fig. 5.19: Colour-code the practice observation sheets and indexes.

Each statement had a number and a colour linking it to the activities within the project stages. A broad system was developed for the colour coding, whereby project activities were coloured variations of green if they predominantly entailed fieldwork, yellows, oranges and reds for developing the field sketches further, and blues and purples for representing landscapes. However, this was more to help later recognition as each set of practice observations covered a variety of categories.

C2 Disassociating practice observations from projects

Cut in to single observations and collect together

Fig. 5.20: Cut up sheets in to single observations

Fig. 5.21: Individual practice observations collected to *shuffle* for re-grouping.

Specific practice observations become *general.*

C3 Categorisation: group practice observations

Two stages of grouping

Groups were set up around four different aspects of practice: site visits, field sketching and site notation, using field sketches, and representing landscapes. Each practice observation was allocated to one of these.

These were then subdivided considerably further, to sub groups according to different types of, or detail activities.

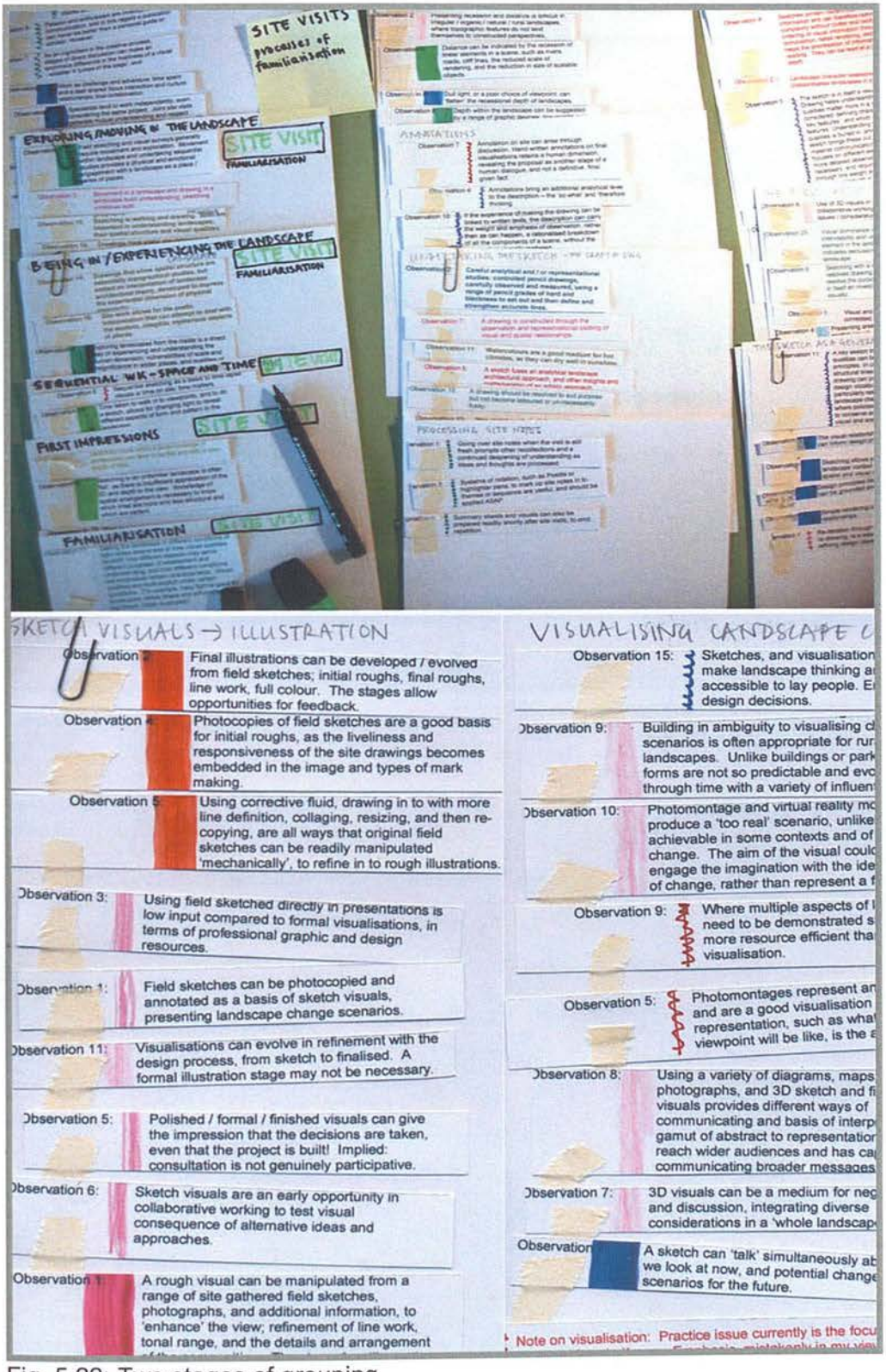


Fig. 5.22: Two stages of grouping.

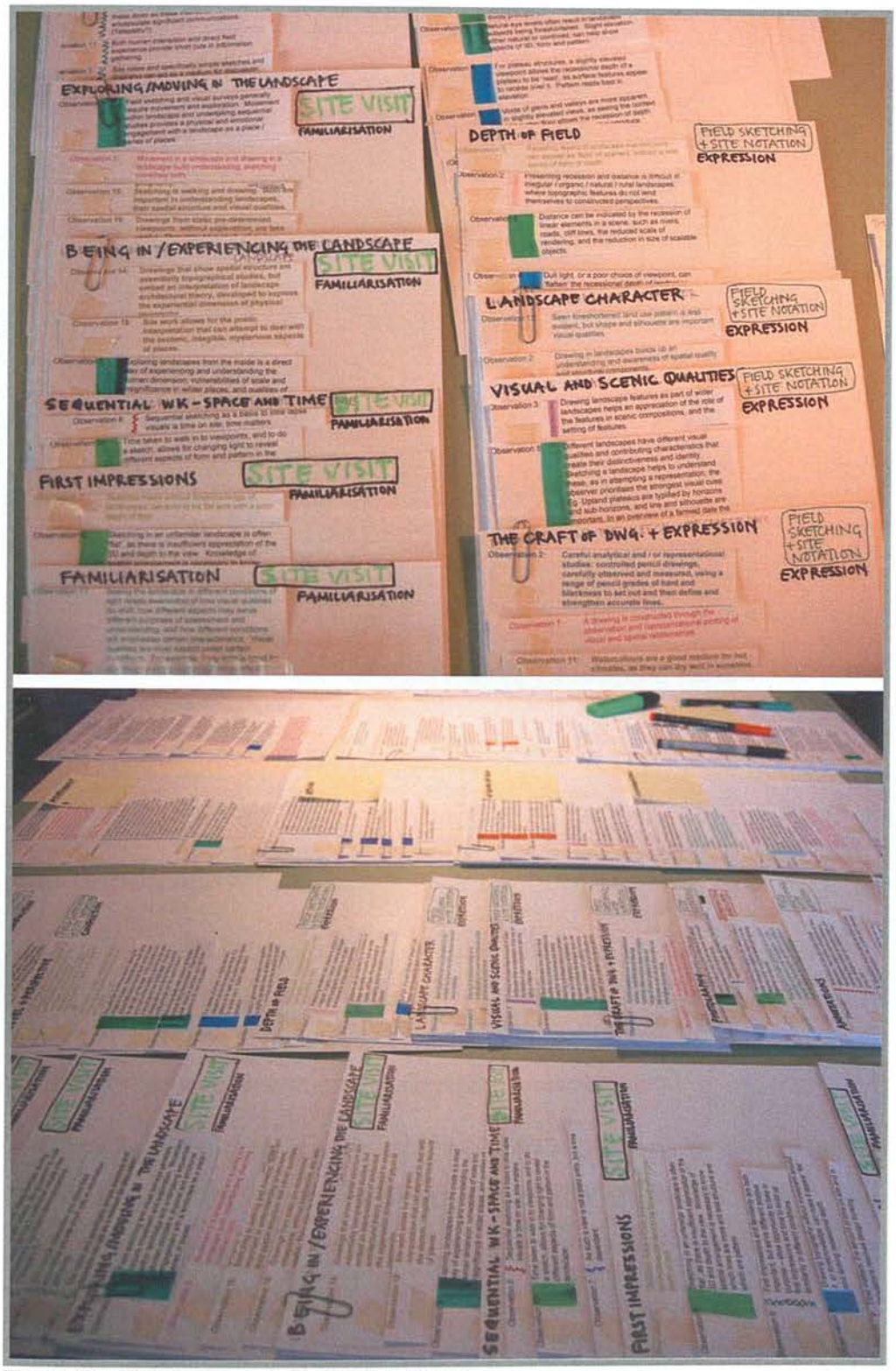


Fig. 5.23: Grouped practice observations.

Marking up the grouped practice observations

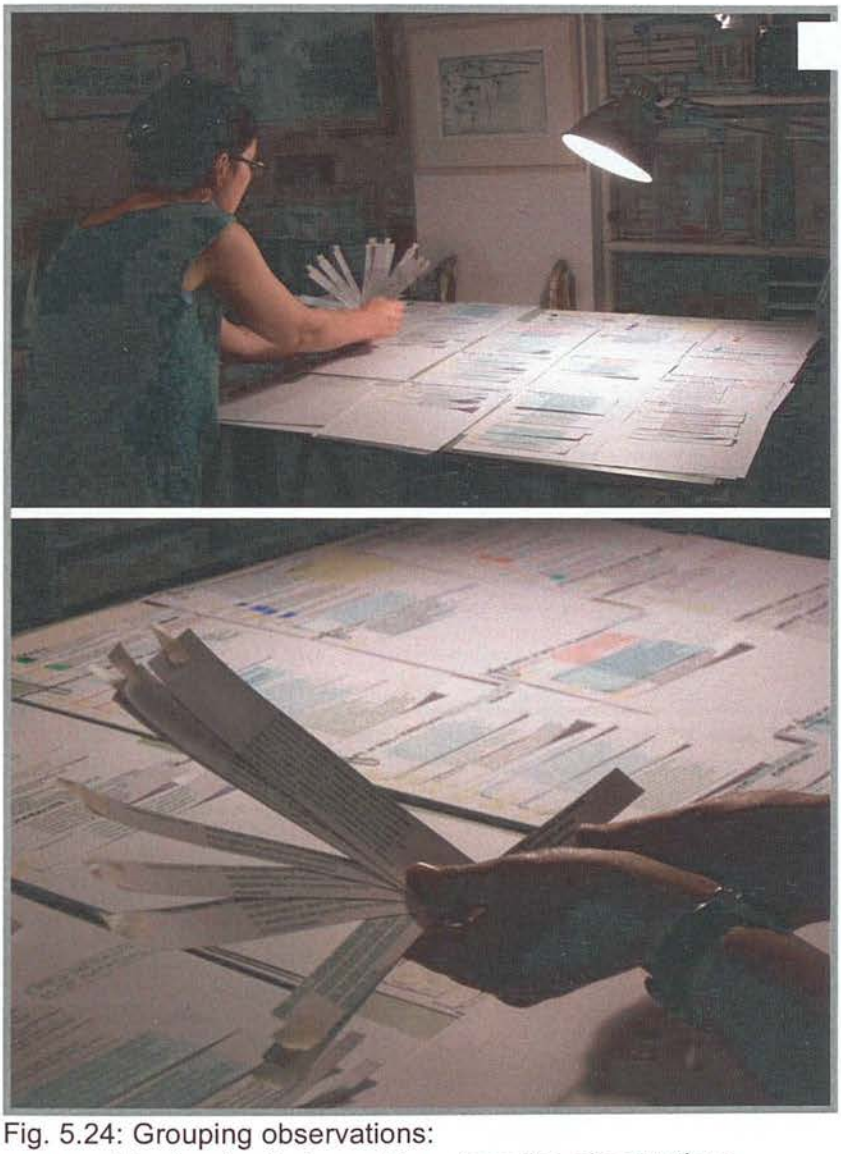


Fig. 5.24: Grouping observations:
a manual task using judgment to categorise observations

The process of grouping the practice observations was a manual task and involved re-reading the observations, out of their original context for the first time. This was useful in refreshing my own grasp of the range of points, and reviewing suitable categories.

Rationalise groups of practice observations

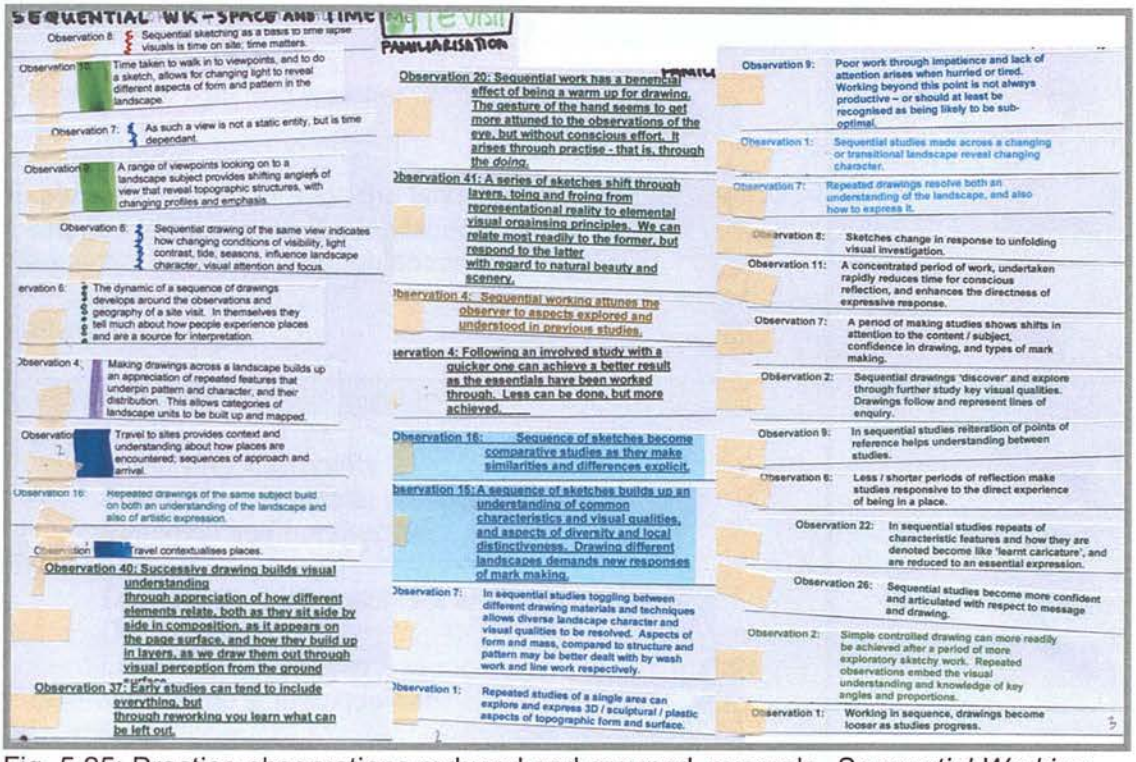


Fig. 5.25: Practice observations reduced and grouped, example, *Sequential Working*.

Core categories of practice observations are gathered.

Summary: *core categories*

Site visits
General observations Conditions of light and weather Lone working Accompanied Exploring / moving through the landscape Being in / experiencing the landscape Sequential working – through space and time First impressions Familiarisation
Field sketching and site notation
Composition Identifying viewpoints Frame, format, scale, composition, focus Eye level and perspective Expression Drawing as craft: materials and mark making Depth of field Landscape character – topography, pattern, texture Visual and scenic qualities Annotations Photography Processing site notes
Developing and using field sketches
The sketch as an analytical technique / tool The sketch as a generator of landscape-rooted form and pattern From sketch visuals to more elaborate visuals and illustrations The field sketch as data for landscape and visual qualities
Representing landscapes
Interpretive imagery Representational techniques Field sketches as interpretive imagery Composite images – multiple perspectives Diagrams Combining images and words The aerial perspective – overviews, axonometrics Mapping Visualising landscape change Interpreting the past

Table 5.8: *Core categories*

Interpreting the results and developing principles from practice

This section is research stage D.

The broad groupings set up at the stage of collating practice observations, were further rationalised to Site visits, Drawing in the field and associated site notation, and Developing and using field sketches. The sub-groupings were reviewed through the process of setting out the principles, to omit duplication, and improve the sequence. Where strong connections existed between groups they were brought together. The organising principle of simplification was used: where opportunities existed to amalgamate groups and statements, or to present information in tables, they were taken.

Sequence	Activity	Outputs
D1	Rationalising and simplifying the *core categories*	Re-grouped *data* / practice observation sheets
D2	Unifying themes drawn out from groups of practice observations as principles	Sequenced list of practice principles (pink highlighter)
D3	Analysing the individual practice observations according to functional criteria of language	Practice observation text statements analysed: • Background • how to do (D) • and benefits (B)
D4	Developing integrated *how to do* and *why important* principles	Principles of practice / *theory*

Table 5.9: Reflection-on-practice stage D, interpreting results.

D1, 2 & 3 Sorting task: rationalise the core categories, unify themes and analyse practice observations

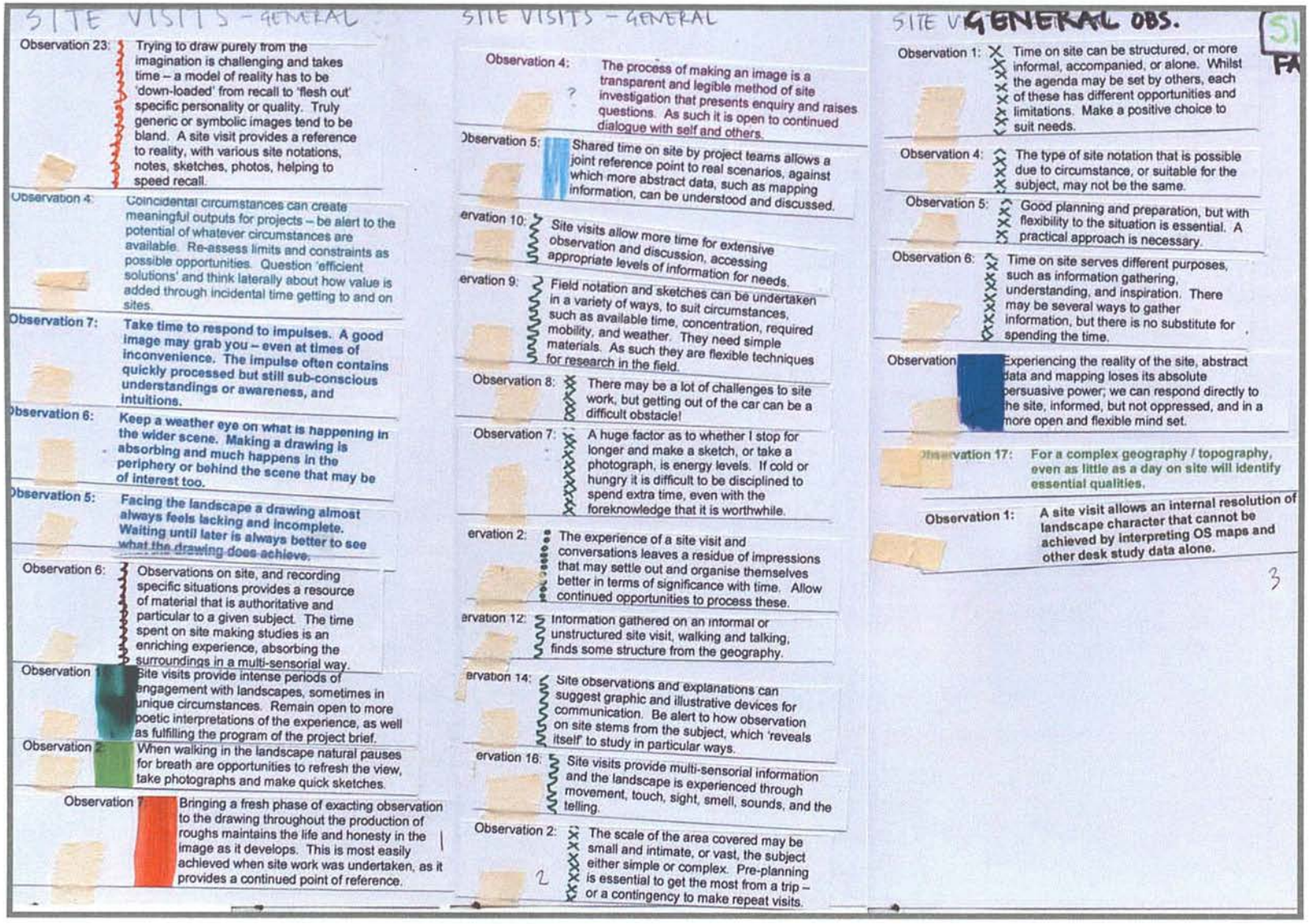
Working with the collated practice observation sheets was a further stage of sorting task. However, the rationalisation and sorting was an exercise in planning-on-paper, rather than the physical coding and categorising of practice observations sheets through marking, cutting and moving. The sheets were used as graphic prompts to structure the written information in to integrated principles.

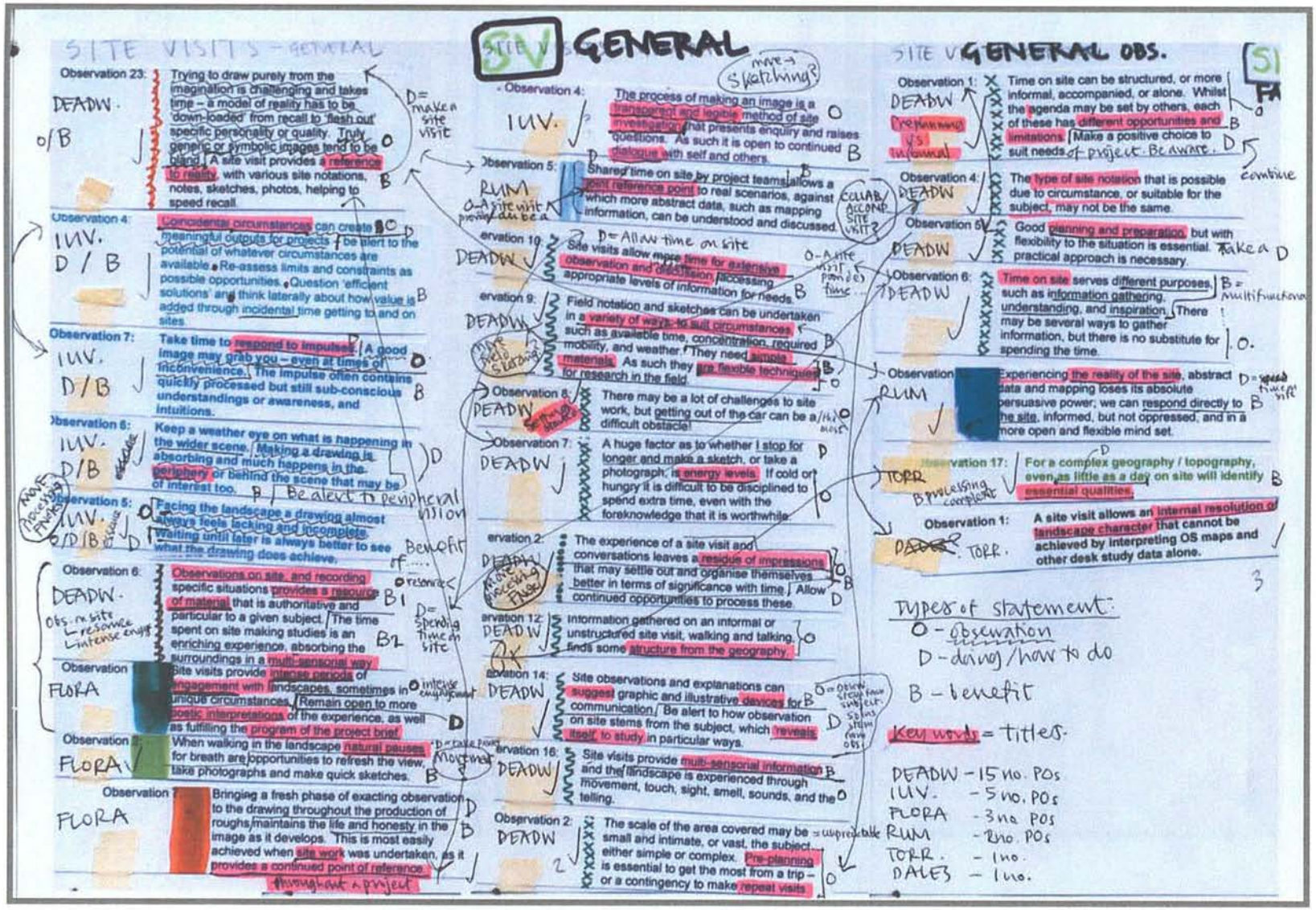
At the initial stage (D1) this allowed for a simplification of the core categories / main themes, and properties / sub themes. The sheets themselves were arranged in to working groups. Secondly (D2), the key phrases in each practice observation was graphically highlighted and became used as the basis of the title for the integrated principles. Thirdly (D3) the sense of the practice observations was analysed according to whether it provided background information, instruction (how to do) or benefits (why important).

Next pages:

Fig. 5.26: Original practice observation sheet.
Fig. 5.27: *Coded* practice observation sheet.

The original and marked up sheets can be referred to: Appendices 10 and 12.


SITE VISITS - GENERAL
Observation 23: Trying to draw purely from the imagination is challenging and takes time – a model of reality has to be 'down-loaded' from recall to 'flesh out' specific personality or quality. Truly generic or symbolic images tend to be bland. A site visit provides a reference to reality, with various site notations, notes, sketches, photos, helping to speed recall.
Observation 4: Coincidental circumstances can create meaningful outputs for projects – be alert to the potential of whatever circumstances are available. Re-assess limits and constraints as possible opportunities. Question 'efficient solutions' and think laterally about how value is added through incidental time getting to and on sites.
Observation 7: Take time to respond to impulses. A good image may grab you – even at times of inconvenience. The impulse often contains quickly processed but still sub-conscious understandings or awareness, and intuitions.
Observation 6: Keep a weather eye on what is happening in the wider scene. Making a drawing is absorbing and much happens in the periphery or behind the scene that may be of interest too.
Observation 5: Facing the landscape a drawing almost always feels lacking and incomplete. Waiting until later is always better to see what the drawing does achieve.
Observation 6: Observations on site, and recording specific situations provides a resource of material that is authoritative and particular to a given subject. The time spent on site making studies is an enriching experience, absorbing the surroundings in a multi-sensorial way.
Observation 1: Site visits provide intense periods of engagement with landscapes, sometimes in unique circumstances. Remain open to more poetic interpretations of the experience, as well as fulfilling the program of the project brief.
Observation 2: When walking in the landscape natural pauses for breath are opportunities to refresh the view, take photographs and make quick sketches.
Observation 7: Bringing a fresh phase of exacting observation to the drawing throughout the production of roughs maintains the life and honesty in the image as it develops. This is most easily achieved when site work was undertaken, as it provides a continued point of reference.
SITE VISITS - GENERAL
Observation 4: The process of making an image is a transparent and legible method of site investigation that presents enquiry and raises questions. As such it is open to continued dialogue with self and others.
Observation 5: Shared time on site by project teams allows a joint reference point to real scenarios, against which more abstract data, such as mapping information, can be understood and discussed.
ervation 10: Site visits allow more time for extensive observation and discussion, accessing appropriate levels of information for needs.
ervation 9: Field notation and sketches can be undertaken in a variety of ways, to suit circumstances, such as available time, concentration, required mobility, and weather. They need simple materials. As such they are flexible techniques for research in the field.
Observation 8: There may be a lot of challenges to site work, but getting out of the car can be a difficult obstacle!
Observation 7: A huge factor as to whether I stop for longer and make a sketch, or take a photograph, is energy levels. If cold or hungry it is difficult to be disciplined to spend extra time, even with the foreknowledge that it is worthwhile.
ervation 2: The experience of a site visit and conversations leaves a residue of impressions that may settle out and organise themselves better in terms of significance with time. Allow continued opportunities to process these.
ervation 12: Information gathered on an informal or unstructured site visit, walking and talking, finds some structure from the geography.
ervation 14: Site observations and explanations can suggest graphic and illustrative devices for communication. Be alert to how observation on site stems from the subject, which 'reveals itself' to study in particular ways.
ervation 16: Site visits provide multi-sensorial information and the landscape is experienced through movement, touch, sight, smell, sounds, and the telling.
Observation 2: The scale of the area covered may be small and intimate, or vast, the subject either simple or complex. Pre-planning is essential to get the most from a trip – or a contingency to make repeat visits.
SITE VISITS - GENERAL OBS.
Observation 1: Time on site can be structured, or more informal, accompanied, or alone. Whilst the agenda may be set by others, each of these has different opportunities and limitations. Make a positive choice to suit needs.
Observation 4: The type of site notation that is possible due to circumstance, or suitable for the subject, may not be the same.
Observation 5: Good planning and preparation, but with flexibility to the situation is essential. A practical approach is necessary.
Observation 6: Time on site serves different purposes, such as information gathering, understanding, and inspiration. There may be several ways to gather information, but there is no substitute for spending the time.
Observation: Experiencing the reality of the site, abstract data and mapping loses its absolute persuasive power; we can respond directly to the site, informed, but not oppressed, and in a more open and flexible mind set.
Observation 17: For a complex geography / topography, even as little as a day on site will identify essential qualities.
Observation 1: A site visit allows an internal resolution of landscape character that cannot be achieved by interpreting OS maps and other desk study data alone.


SITE VISITS - GENERAL
SV GENERAL
SITE V GENERAL OBS.
Observation 23:
Trying to draw purely from the imagination is challenging and takes time – a model of reality has to be 'down-loaded' from recall to 'flesh out' specific personality or quality. Truly generic or symbolic images tend to be bland. A site visit provides a reference to reality, with various site notations, notes, sketches, photos, helping to speed recall.
Observation 4:
Coincidental circumstances can create meaningful outputs for projects / be alert to the potential of whatever circumstances are available. Re-assess limits and constraints as possible opportunities. Question 'efficient solutions' and think laterally about how value is added through incidental time getting to and on sites.
Observation 7:
Take time to respond to impulses / A good image may grab you – even at times of inconvenience. The impulse often contains quickly processed but still sub-conscious understandings or awareness, and intuitions.
Observation 6:
Keep a weather eye on what is happening in the wider scene. Making a drawing is absorbing and much happens in the periphery or behind the scene that may be of interest too. / Be alert to peripheral vision
Observation 5:
Facing the landscape a drawing almost always feels lacking and incomplete. Waiting until later is always better to see what the drawing does achieve.
Observation 6:
Observations on site and recording specific situations provides a resource of material that is authoritative and particular to a given subject. The time spent on site making studies is an enriching experience, absorbing the surroundings in a multi-sensorial way.
Observation
Site visits provide intense periods of engagement with landscapes, sometimes in unique circumstances. / Remain open to more poetic interpretations of the experience, as well as fulfilling the program of the project brief.
Observation 8:
When walking in the landscape natural pauses for breath are opportunities to refresh the view, take photographs and make quick sketches.
Observation 7:
Bringing a fresh phase of exacting observation to the drawing throughout the production of roughs maintains the life and honesty in the image as it develops. This is most easily achieved when site work was undertaken, as it provides a continued point of reference throughout a project.
Observation 4:
The process of making an image is a transparent and legible method of site investigation that presents enquiry and raises questions. As such it is open to continued dialogue with self and others.
Observation 5:
Shared time on site by project teams allows a joint reference point to real scenarios, against which more abstract data, such as mapping information, can be understood and discussed.
ervation 10:
Site visits allow more time for extensive observation and discussion, accessing appropriate levels of information for needs.
ervation 9:
Field notation and sketches can be undertaken in a variety of ways, to suit circumstances, such as available time, concentration, required mobility, and weather. They need simple materials. As such they are flexible techniques for research in the field.
Observation 8:
There may be a lot of challenges to site work, but getting out of the car can be a difficult obstacle!
Observation 7:
A huge factor as to whether I stop for longer and make a sketch, or take a photograph, is energy levels. If cold or hungry it is difficult to be disciplined to spend extra time, even with the foreknowledge that it is worthwhile.
ervation 2:
The experience of a site visit and conversations leaves a residue of impressions that may settle out and organise themselves better in terms of significance with time / Allow continued opportunities to process these.
ervation 12:
Information gathered on an informal or unstructured site visit, walking and talking, finds some structure from the geography.
ervation 14:
Site observations and explanations can suggest graphic and illustrative devices for communication / Be alert to how observation on site stems from the subject, which reveals itself to study in particular ways.
ervation 16:
Site visits provide multi-sensorial information and the landscape is experienced through movement, touch, sight, smell, sounds, and the telling.
Observation 2:
The scale of the area covered may be unpredictable small and intimate, or vast, the subject either simple or complex. Pre-planning is essential to get the most from a trip – or a contingency to make repeat visits
Observation 1:
Time on site can be structured, or more informal, accompanied, or alone. Whilst the agenda may be set by others, each of these has different opportunities and limitations / Make a positive choice to suit needs of project. Be aware.
Observation 4:
The type of site notation that is possible due to circumstance, or suitable for the subject, may not be the same.
Observation 5:
Good planning and preparation, but with flexibility to the situation is essential. Take a practical approach is necessary.
Observation 6:
Time on site serves different purposes, such as information gathering, understanding, and inspiration / There may be several ways to gather information, but there is no substitute for spending the time.
Observation
Experiencing the reality of the site, abstract data and mapping loses its absolute persuasive power; we can respond directly to the site, informed, but not oppressed, and in a more open and flexible mind set.
ervation 17:
For a complex geography / topography, even as little as a day on site will identify essential qualities.
Observation 1:
A site visit allows an internal resolution of landscape character that cannot be achieved by interpreting OS maps and other desk study data alone.
Types of statement:
O - Observation
D - doing / how to do
B - benefit
Key words = titles.
DEADW - 15 no. POs
IUV. - 5 no. POs
FLORA - 3 no. POs
RUM - 2 no. POs
TORR. - 1 no.
DALES - 1 no.

Site visits
Fieldwork Set up Being on site Lone working and accompanied site visits, collaborative fieldwork The experience and perception of the landscape Being in and experiencing the landscape Exploring and moving Temporality; light, weather, tide, seasons Sequential working and familiarity
Drawing in the field and associated site notation
Drawing as craft and expression Materials and mark making Scale and distance; depth of field, space and recession Landscape character and visual qualities; topography, pattern, texture Field sketching The stages of drawing Composition; positioning the viewer, framing the view
Developing and using field sketches
Landscape drawing, analysis and design The sketch as an analytical technique / tool The sketch as a generator of landscape-rooted form and pattern Landscape representation Interpretation of landscapes Visualisation Representation and presentation techniques

Table 5.10: Rationalised and re-grouped *core categories.*

D4 Developing integrated *how to do* and *why important* principles

The fourth stage was using the marked up practice observation sheets as a plan for writing the integrated *how to do* and *why important* principles. The principles are variable in length, complexity and level of detail addressed, as they are developed *ground up* from the practice observations. Whilst attempts to fill obvious gaps were taken in the rewriting, the intention was to remain honest to the spirit of the observations gained through reflection on practice. Where additions were made, these arose through further reflection, rather than *top down,* from theory.

The detail interpretation of results from reflective practice, developed and rewritten as *how to do* and *why important* integrated principles have been taken out of this thesis as the basis of future publication. These have been refined and summarised in Chapter 6. However an example is included in full from each of the six main themes. Illustrations have also been included. Examples are taken from the practice case studies that were of particular relevance in contributing to the principles. See Appendix 13: Summary of case study origins of practice observations.

SECTION THREE
Developing theory from data

Section Three presents both a refined and summarised account of the interpretation of the observations made through reflective practice and support for these ideas from theory and literature.. In the context of *Grounded Theory,* these represent the two main strands of data used in this study: the practice observations being the primary data from which the key principles were developed, and literature providing the observations by others on the subject as a source of affirmation, or otherwise, and enrichment of those ideas..

Contents

Preamble

During the early 1990s I was taken on as the Graduate Placement for the Countryside Commission for Scotland, working as assistant to the Landscape Architect, Alison Grant. I worked on two areas of work: developing siting and design guidance for rural development, and monitoring landscape change in Environmentally Sensitive Areas through landscape character assessment. The work involved site visits around Scotland, notably to the crofting areas on the machair lands of the Outer Hebrides, and around the ins and outs of the west coast. This experience was formative in my professional and artistic practices, leading to an ongoing interest in the then new thinking, in landscape character assessment, and fascination with traditional cultural landscapes.

The last eighteen or so years experiences have included working with landscape character and visual assessment, undertaking illustrations to commission, continuing to develop research and art work, and occasional teaching and workshops. The areas of professional practice since 2000 have been the source of reflection on practice for this thesis, outlined in detail in the Appendices.

Throughout this period making sketches, usually as quick scribbles, occasionally as longer studies, has been a basis to my own site work and thinking. Sharing these with others proved an immediate way to discuss how the landscape was, and test scenarios of change. Taking site photographs has also been important as a visual reference, but if I didn't consciously work with these soon after the site visit, the point was often forgotten, whereas the sketches for all their representational imperfections took site observations further, and embedded them in to my thinking.

Developing sketches in to more finished visualisations has become increasingly easy, as Photoshop replaces corrective fluid and the photocopier. And the sketch visualisations set up a different state of engagement with audiences, involving people within a process of *becoming* and change, rather than a confrontation with a finalised scenario. I had established this form of practice during early years of landscape architectural practice, working with community environmental enhancement projects. Where standard plans failed, sketch three-dimension visuals, both eye level and elevated views were a successful way of drawing people in to their local environments and introducing possibilities of change.

The landscape character approach and work with visualisation provided me with a *unique selling point* for illustration. At a time of increasing availability of work in environmental interpretation, the ability to create attractive visuals, that also appear convincing, and grasp why a landscape looks and functions in certain ways, was saleable. Place specific visuals arose from this technical understanding, but were inspired by illustrators of the Forties and Fifties, such as Paul Nash, and John Piper. Formerly official war artists, these and other *Neo-Romantic* (Yorke, 2001) artists continued to illustrate the famous Shell Guides, the artwork of which exemplifies the idea, *sense of place*. Growing up in Cumbria, Wainwright's pictorial guides to the fells had also been around home and influential from an early age.

Periods of self-employment, and thereby required self-promotion, forced me to articulate to others what benefits my approach brought, to validate time for site visits, and landscape visuals that were technical, as well as decorative. Illustrated and topographical maps and overviews have a long tradition and have recently enjoyed particular popularity for use in orientation and wayfinding. The commercial validation has to start by identifying with the *problem* that the potential client needed a solution for. Within visitor management, these tended

to be engaging people with places, encouraging them to learn, feel, and behave in certain ways, and helping them find their way around.

It has been an ongoing inspiration, influence, and support to work and communicate with other landscape architects, whose work is typified by fieldwork. Over the last few years I have worked on the client-side for two windfarm capacity studies in Scotland. The first was for an area of mutual concern between Stirling Council and the Loch Lomond and The Trossachs National Park Authority, and during 2010 a second for Dumfries and Galloway. For the former Caroline Stanton, (who had been my client working on Rum), undertook the work, and for the latter Alison Grant worked in association with Carol Anderson. As a straight forwards, if anecdotal, observation the experience on site seems to bring an added weight to the work, an impressive ability on the part of the practitioners to articulate the visual and other aspects of landscape perception, as well as to resolve complex problems relating to judgements of significance of impacts and potential capacity over vast geographies. Processing the spatial and visual implications of detail design decisions on large-scale landscape change requires considerable abilities and should not be under-rated. It is my belief that the exceptional skills of these practitioners lie in large part due to their ongoing development of *reading* and *articulating about* landscapes, rooted in the experience of work in the field.

My own long period of fusing landscape architectural and artistic practice embedded an approach and way of working. The thesis has provided a way to look more rigorously at the underlying processes and influences, and to test through reflection-on-practice, and with reference to the work and ideas of others, some of the specific existing and potential roles of field sketching, and the visualisation imagery developed from it, understood through the thesis as being *interpretive imagery*.

SECTION THREE

Developing theory from data

Chapter 6 Refined and summarised practice principles

Introduction

Chapter 6 presents a refined and summarised version of the interpretations of the *how to do* and *why important* practice observations, developed and rewritten as *integrated principles* from the case study data; the detail of which have not been included in this thesis and will form the basis of future publication.

The following tables list the integrated *how to do* and *why important* principles developed through reflection-on-practice.

Site visits

Fieldwork
Set up
• The site visit versus desk study • Desk study based visuals • Pre-planning of site visits • Identifying viewpoints; planning ahead
Being on site
• Spontaneous responses; unplanned visits, coincidence and impulse • Travel to sites and *walks in* • Getting started, energy levels, state of mind • Time on site • Multi-sensorial information and poetic interpretation • Photographic survey; information gathering and representing landscapes • Processing site notes
Lone working, accompanied site visits, and collaborative fieldwork
• Lone working • Site visits; input by others • Unspoken communication and *intuitive leaps* • Effective collaboration; time + doing + tasks + on site + together • The sketch; medium for interaction and discussion
The experience and perception of landscapes
Being in and experiencing
• *Being in, looking out; being out with, looking in* • Multi-sensorial perception and sketching • Visual perception and sketching; *looking harder*, an experiential perspective
Exploring and moving; identifying viewpoints
• Fieldworkers and movement • Perception and movement • Peripheral vision and pausing for breath • Sketching and exploring; movement and drawing
Temporality; light, weather, tides, season
• Temporal conditions; visual qualities and landscape character • Experiencing and portraying temporal qualities
Sequential working; across space and time
• First impressions and familiarity • Sequential studies • Sequential studies; same view or subject • Sequential studies; range of view points • Thumbnail sketches

Table 6.1: Practice principles: site visits

Drawing in the field, and associated site notation

Drawing as craft and expression
Materials and mark making
• Field sketching: an artistic approach • Materials • Mark making and line work • Gesture and expressive marks; *getting in touch*
Scale and distance; showing depth of field, space and recession
• Establishing scale and distance • Landscape experience and landscape scale • Foreground, mid distance, background • The roles of perspective: scale and recession • Foreshortening • Linear features; implications of movement, showing recession • Graphic devices
Landscape character, visual and scenic qualities; topography, pattern, texture
• Graphic devices to show landscape character and visual qualities • *Caricaturing* landscapes • *Natural beauty* and *scenic qualities*
Field sketching
The stages of a sketch
• Flexible techniques of field notation • Setting out • The scope of a drawing; *selection* and *knowing when to stop* • Testing ideas with quick impressions • *Giving up*; a valuable stage • Observational drawing; understanding through *doing* • Sketching as a meditative process • Annotations; field sketches
Composition
• The sketchbook; a *framing device* • The experience of looking; rooting composition • Identifying viewpoints; the intuitive response and chance viewpoints • Types of viewpoint; serial, representative and iconic viewpoints • Enclosure and exposure; framed and panoramic views • Establishing viewing height; placing the *eye level* • The view as part of the whole • Compositional devices

Table 6.2: Practice principles: drawing in the field, and associated site notation

Developing and using field sketches

Landscape drawing, analysis and design
The sketch as an analytical technique / tool
• Drawing as a technique for analysis • Field sketching and landscape character assessment
The sketch as a generator of landscape-rooted form and pattern
• The sketch and direct interpretation of landscape design theory • The sketch as a *template,* towards *landscape fit* • Sketching, developing design options, and testing ideas with others
Landscape representation
Interpretation of landscapes
• Landscape concepts; diverse audiences • The analytical sketch as a visual language • Visualisation; an interpretive tool to aid imagination • Effective visual communication • The field sketch as an *interpretive image*
Visualisation
• Field sketches as initial roughs, or final visuals • Sketch visuals
Representation and presentation techniques
• Developing *whole landscape vision* • Diagrams • *Typical landscapes*; natural and overviews, and 3D schematics • Multiple perspectives, constructed and composite views • Overviews and axonometrics • Combing maps and natural views • Landscape change; representing ambiguity • Interpreting the past; representing persistence • Annotations and labels; visuals • Composing messages; design and layout

Table 6.3: Practice principles: developing and using field sketches

Site visits

Site visits principles are drawn together from the practice observations broadly grouped around Fieldwork, and the Experience and perception of the landscape.

Fieldwork

Illustrated examples

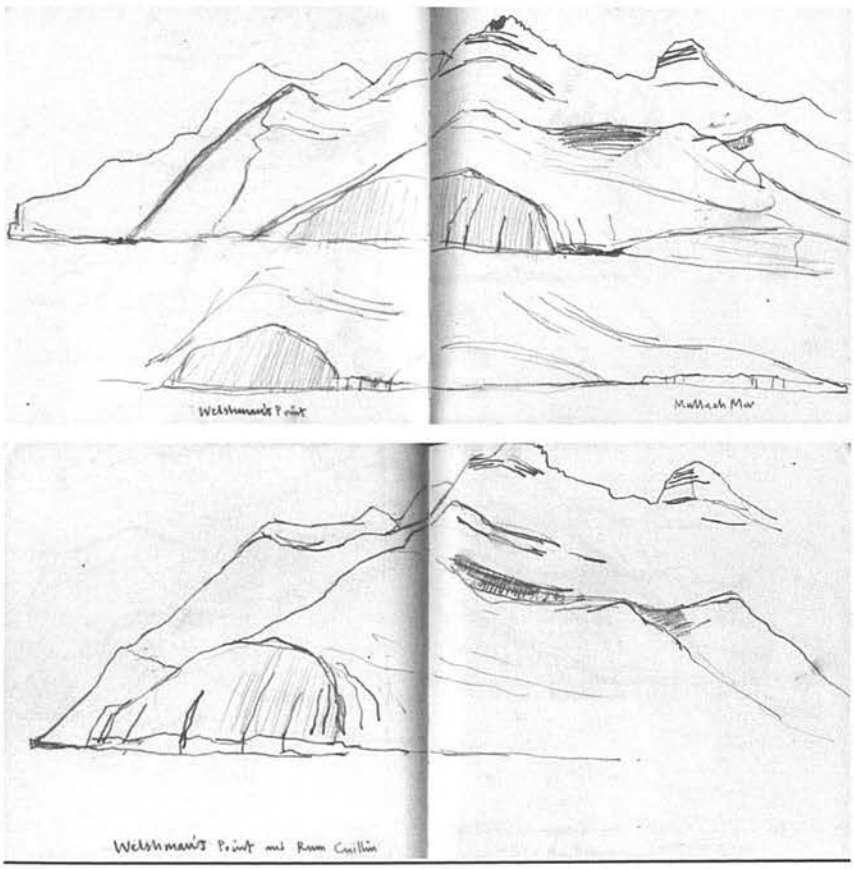


Fig. 6.1: Rum sketched from the ferry, on the journey to site. These quick sketches helped to resolve an understanding of the island's overall topographic structure, and the contribution of the exposed coastal slopes to *wildness*.

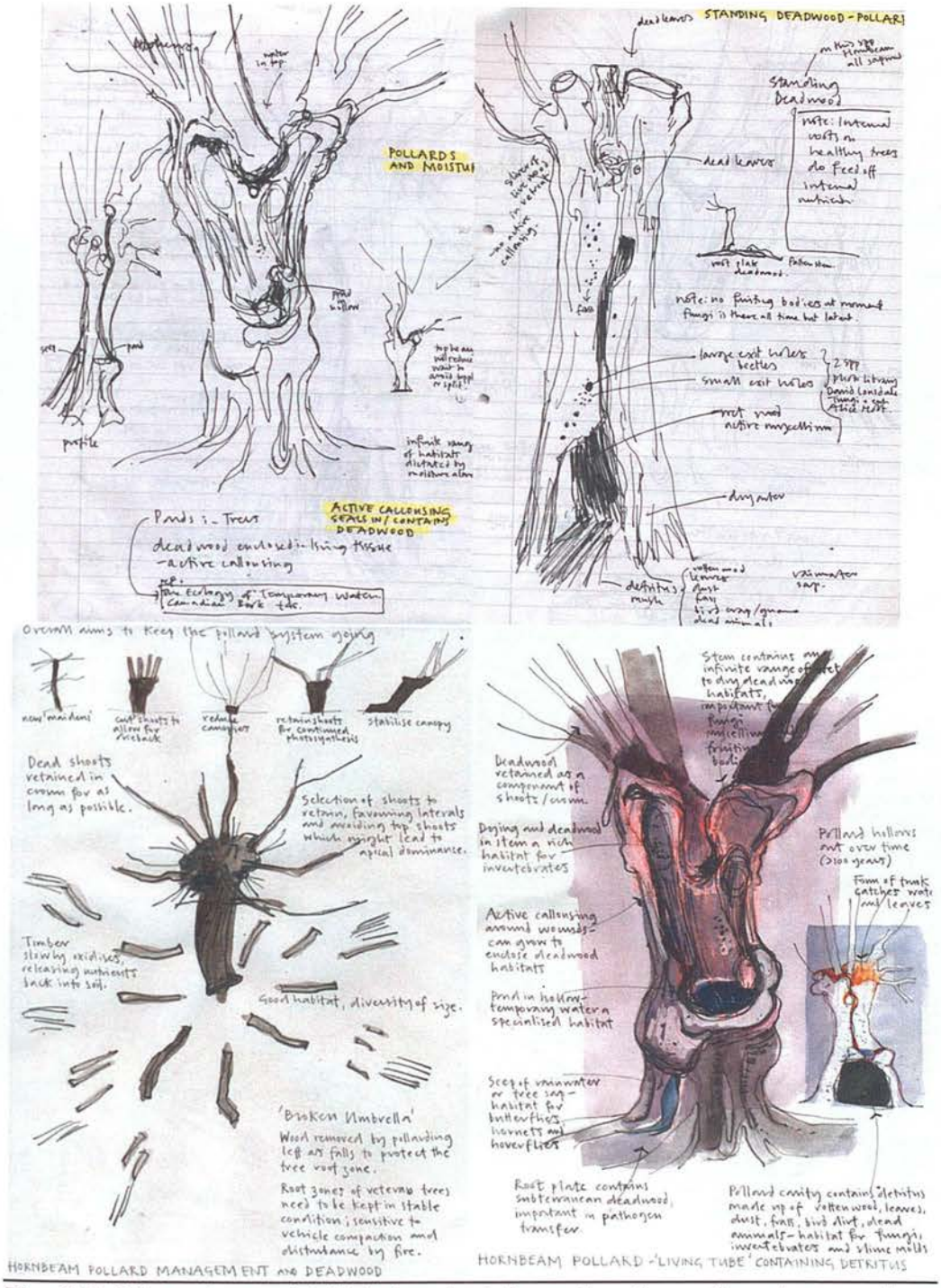


Fig. 6.2: Site notes and initial visuals. Information from site notes was brought together and organised after a full day at Hainault Forest. The evening provided an opportunity to draw out the key themes and experiment with the artistic and representational potential of the *deadwood stories* that were taking shape.

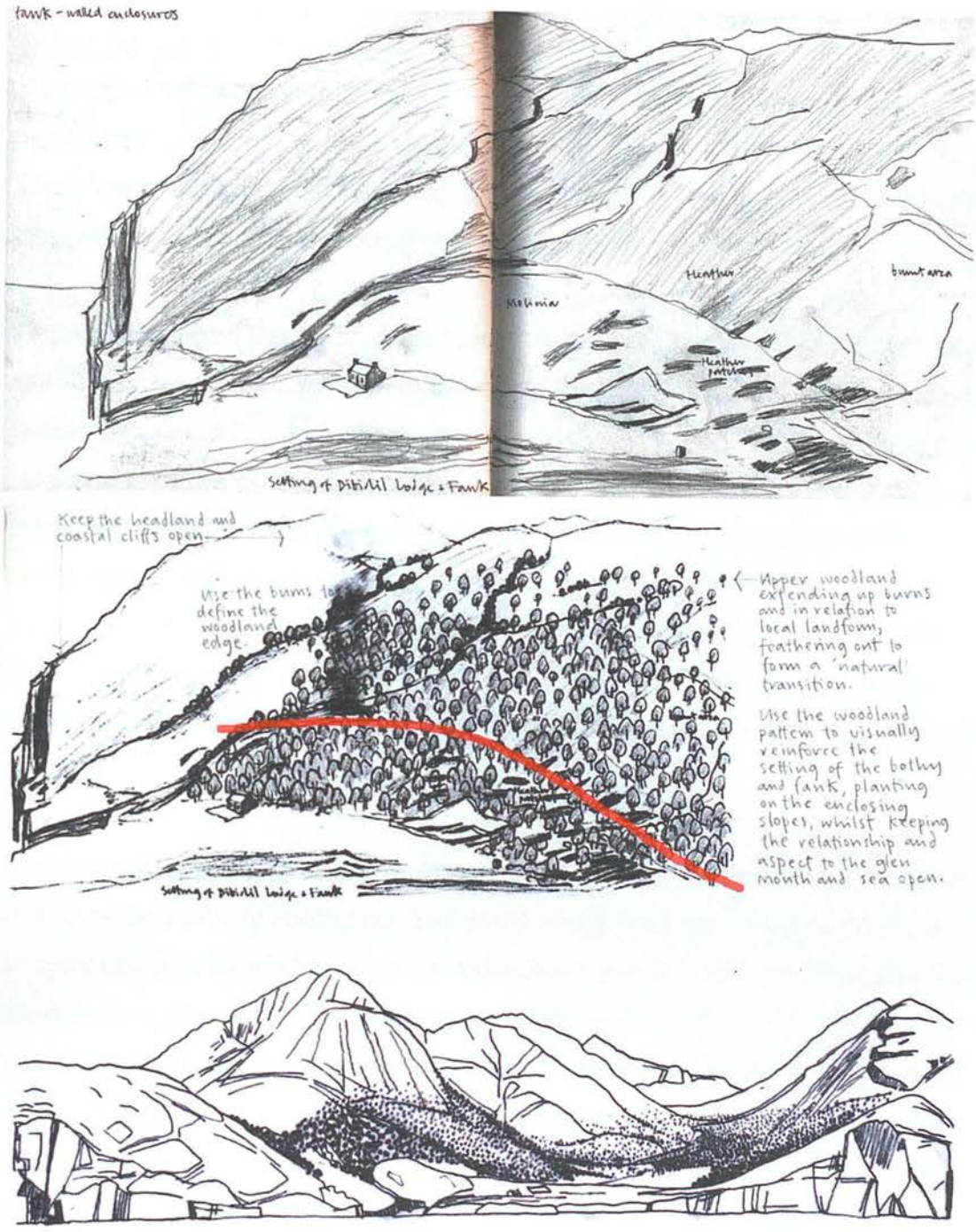


Fig. 6.3: Sketching and the sketch, landscape and visual data. Drawing whilst talking on site at Dibidil on Rum became an active demonstration of the areas, structural edges and features that provided opportunities and were constraints for woodlands around the bothy. This thinking was important in articulating visual quality as a sort of *data*, which allowed consensus building within multi-disciplinary discussions on site. It underpinned the final design proposals.

Setting up and planning site visits

Through practice observations site visits were noted as offering a range of benefits as compared to desk study. Site visits provide a reference to reality and understanding that is based on experience. This is not achieved through interpreting OS maps, and other desk study data.

Visuals developed based on desk study, tend to be diagrammatic, as there is insufficient information *in mind* to reference specific landscape quality. Three-dimensional qualities are difficult to achieve, due to variations of: the lie of the land and textures of vegetation. However, diagrammatic drawings can be successful in visualising the generalities of a landscape, for example, for *landscape character types*, or *typical landscapes*. Drawing in the field deals with the particularity of a place, but in the process of representing seeks out and selects patterns, thereby moving from the specific to the general character. Making sketches, notations, and photographs help to speed and refresh recall from site.

Planning site visits provides a feeling of confidence in circumstances that can only ever be partially controlled. The scale of the area and complexity of the subject covered by fieldwork varies. Pre-planning and foreknowledge gets the most from a site visit, or be prepared to make repeat visits. The agenda for a site visit may be set by others or self-driven. Make positive choices about the site visit: structured or more informal, accompanied or alone. Scope out an area's geography using maps, and build in alternatives to experience places by foot, car, et cetera. Make the most out of the journey to site to take in the wider context. Undertake other research, such as natural and cultural heritage and take best advantage of temporal conditions, such as tide, light, weather. Plan routes and leave route plans if lone working; take appropriate outdoor gear to protect against sun, rain, et cetera; and other basics (insects repellent, first aid,

mobile). Take materials to suit program of brief, anticipated textures and colours of a landscape, appropriate sketchbook format, indelible pens, protection for work. Take camera, protective bag, spare battery and memory card. Be flexible to circumstances: a practical approach is necessary once on site.

Viewpoints provide a basis against which much landscape work is carried out. Establishing points of good prospect, or popular outlook connects the practitioner with how a landscape is experienced by people. Provisional viewpoints can be selected as a desk exercise from OS maps, but precise locations should be established on site; taken to best advantage, and in the case of landscape and visual impact assessment representing worst-case scenarios. Speak to local people and specialists, such as Rangers, who are familiar with an area's geography, public perceptions and habits of use. Establishing a provisional list of structured viewpoints makes most efficient use of time on site: allowing both anticipated good viewpoints, and good finds. Viewpoints for landscape and visual impact assessment may either represent visual receptors, or a position from where the impacts, design principles, and potential mitigation of a development can be seen.

Being on site

Remain flexible and be alert to whatever circumstances are available. Question *efficient solutions* and try to add value through the incidentals, such as time getting to and from sites, or encounters. Observation on site can stem from the subject; the landscape *reveals itself to study* in particular ways. Make the best of chance views and be prepared: factors of remoteness or unusual conditions make returning difficult and unpredictable. Information gathered on an informal site visit finds some structure from the geography. Arriving on site builds a tacit knowledge about how places are encountered, sequences of approach and arrival, whether they feel to be remote, or otherwise. Being or getting tired will work at every stage of observation and sketch work, but if set in at the initial

observation stage there is unlikely to be a positive outcome. Avoid cold or hunger on site, or journeys to site. Energy levels are critical to avoid poor work (lack of purpose in observation, tentative execution, imprecise line work, incoherent expression and lack of definition) arising through impatience and lack of attention.

Time on site serves different purposes: information gathering, understanding, and inspiration. There may be several ways to gather information, but no substitute to spending the time. Avoid taking short cuts, or making efficiencies, that reduce time walking and drawing. Even quick studies can achieve good results and enforced brevity focuses on essentials. Time drawing allows for good moments of light for observation or photographs. However, extensive observation and in depth discussion, deepen understanding and familiarity.

Being on site immerses the practitioner and student in sensual environments. The dominance of one sense over another and inter-relationship between sensations becomes apparent. Experience and how it is represented goes beyond the visual, and is built up through associations. Be conscious and aware of multi-sensorial information, beyond the obvious views: movement, touch, sight, smell, sounds and the telling of the place by others. Be open to visual and other associations, such as metaphors: note down comparisons and *'that reminds me of….., looks like…..'* Site work allows for poetic interpretation that processes the esoteric, intangible, and mysterious aspects of places. Building in metaphorical associations can be evocative in the drawing, giving it a potency and energy that goes beyond representation.

Photographic survey is a particularly important to gather detailed information, which is either unsuitable to sketch, or may not be required by the project. A camera treats everything with an objective gaze, accurately representing, and not able to *look harder* as does the eye, to select essentials. A photograph contrasts with the interpretive quality of a sketch. Photography is useful as a

back up in gathering information, where speed and coverage matter, or when working with others. Variation is built in through the selection and framing of views, attention to the changing quality of light, and according to the artistic and technical skills of the photographer.

Photographs capture:

- Faithful, consistent, representations.
- The scope wide panoramas, foreground and macro-details, using camera stitching functions, zooms, or manual techniques of collage.
- Glimpses of changing light that reveal particularities of landscape. Specific conditions of light: low light and high contrast suitable for topography, clear light suitable for land use pattern.
- Reference for true and representational colours.

Photographs can build in a *time-lapse* appreciation of a scene, or monitor landscape change. They can act as benchmarks to *real scenarios*. (Note special requirements for landscape and visual impact assessment).

A deliberate stage of processing site notes and sketches, as well as site photographs, should be factored in. This period of review and reflection is invaluable in assessing what maters and making the site visit effective. If approached as an afterthought, much information will be lost. Systems of notations, such as Postits, or highlighter pens, usefully develop themes, or sequences. Prepare summary sheets and initial visuals as early as possible to collate and rationalise information. Allow continued opportunities to process the impressions of a site visit: the experiences and conversations leaves a residue of impressions that settle out with time, to indicate significance. Reading over notes prompt recollections and reflection on early studies away from the site can take the investigator beyond the drawing.

Lone working, accompanied site visits, and collaborative fieldwork

Allow time on site alone. Travel in the first instance to experience the *first impression* without the distractions of a formal introduction. The stranger, or *outsider* to a place notices different things and there is only the initial opportunity, unaccompanied, to take those in. Being alone sharpens observation and processing, as the distractions of social interaction are absent. This can inform much thinking for a project. Overnight stays are opportunities away from daily home distractions to process site notes, a reflective stage that can be hard to build to later in a project. Orientation and getting around a landscape is a good way to build up a mental map and understand how elements relate. It is easy not to take this in when being guided.

However, a site visit is an opportunity for face-to-face contact with clients and local experts. Meet as wide a range of people with general and specific interests in places and their features: countryside rangers, decision makers, farmers, woodland managers, naturalists, local experts, inhabitants, other specialist guides and advisors. This accesses deep levels of understanding and broad local and specialist knowledge. Local guides help to efficiently get around; plan trips and negotiate the geography, land ownership, timetables, and controlled access. Also, an *insider perspective* provides a short cut to familiarisation with place and popular public perceptions: *best views, good walks, favourite places for sitting or picnics….* Site discussions generate options; compromises emerge as possibility rather than confrontation. Categories blur and lines become more permeable, when facing a landscapem, rather than abstract data and maps.

Visual ideas can arrive *ready formed* during conversations with others, and much is understood without a word spoken. These instinctive visuals often encapsulate significant communications. Stimulate and nurture expressive and enthusiastic discussion; avoid over formalisation. The time of a site visit allows

for this interaction to develop and short cuts information gathering and processing. Natural passion and enthusiasm can more easily be generated on site than in *around table* discussions, and are invaluable in communication; they add ingredients to the creative process.

Good collaboration is time *doing* a task together and site visits can provide such opportunities: effective collaboration = time + *doing* + tasks + on site + together

The site visit or fieldwork becomes a shared experience and task to focus on, encompassing both the program of the brief, and negotiating the practicalities of the fieldwork. Collaboration is a social activity, which needs and generates different dynamics compared to solo working. Investment in relationships is an important aspect of working with people. Sharing stages of work, critical and more coincidental decisions, sharing a literal point of view when observing, sharing thoughts / thinking out load when drawing, externalising internal dialogues and having opportunity for external dialogues, questioning, showing, listening. Collaboration generates a motivational shift in all involved as social implications are factored in to judgements and positions. This allows options, such as for design, to be reviewed with open minds, more potential fluidity of outcomes, finding common ground and mutual respect. Time on site capacity builds with those involved in a direct way: raising awareness in clients and landowners of the significance of the landscape and visual resource of their project and its wider setting, and engaging the landscape specialist with project agendas and local issues. Site visits break down prejudices built up about a place, either through familiarity (breeding contempt), or false interpretations of desk study data. The site visit is a joint reference point and as a physical challenge operates like a *team building* exercises.

Within this collaborative context the sketch and the actual view can be a medium for interaction and discussion. Avoid the sketch becoming precious, or the

business / physical territory of the artist or designer: provide enough pencils for all. The sketch is a virtual version of the real view, with which all have roles and input. However stopping to sketch requires *permission* when undertaking fieldwork with others. Build in time that doesn't compromise schedules. Make use of natural pause points, to catch breath, take in the view, or have lunch. Natural viewpoints are often good and instinctive viewpoints. Talk whilst sketching: dialogue makes explicit the associated thought processes, and feeds the social expectations of the site visit. Sketching grounds ideas in reality, building in checks and tests: *Do I see correctly what you mean? Do you see what I mean? Turning over a clean sheet* is an act of drama that communicates, *'This can be whatever you want!'* In materialising shared observations, and generating interactions through the drawing and labelling, there is a process of participation that goes beyond a simple *telling* and *listening*. The time it takes to sketch, both the arriving at the viewpoint and making the drawing, is time for people to take things in, to respond rather than react, to both the situation, and to what others say. This contrasts with meetings around a table remotely that force quick decisions. The gestures of pointing and drawing can be interchangeable.

Illustrated examples

Fig. 6.4: Dusk at Savernake. The failing light emphasises the ancient oak hulks, which seemed to chase me out, reclaiming their forest. As the visual sense is suppressed the imagination can become more powerful and other senses and emotions take over. Fieldwork engages all our senses and stimulates a range of emotions.

Following pages:

Fig. 6.5: The Dales landscapes are strongly characterised by the pattern of field walls. The temporal conditions of light and snow are particularly significant in the appreciation of the linear visual qualities. The orientation of the dales and walls that cross them mean that the walls catch strong shadows in early morning and evening light. Snow conceals much other visual information, such as textures and colours, thereby heightening the significance of the wall patterns.

Fig. 6.6: Working alone field sketching around Iuvanum's wide territories over a prolonged period provided me with an opportunity to undertake some more detailed studies of the area. The top study of La Majella recalls well the overwhelming impression the mountain from this vantage made on me. Subsequent work continued to grapple with the relationship of Iuvanum's plateau with the *Mother Mountain*, a landmark of great mythic significance in the area. Through continued exploration and sequential work knowledge of the three-dimensional spatial qualities and understanding *what matters* as features in the landscape developed. Later sketches readily resolved the complex topography, which confounded me on first attempts at representation. See Chapter 3, Case study outlines.

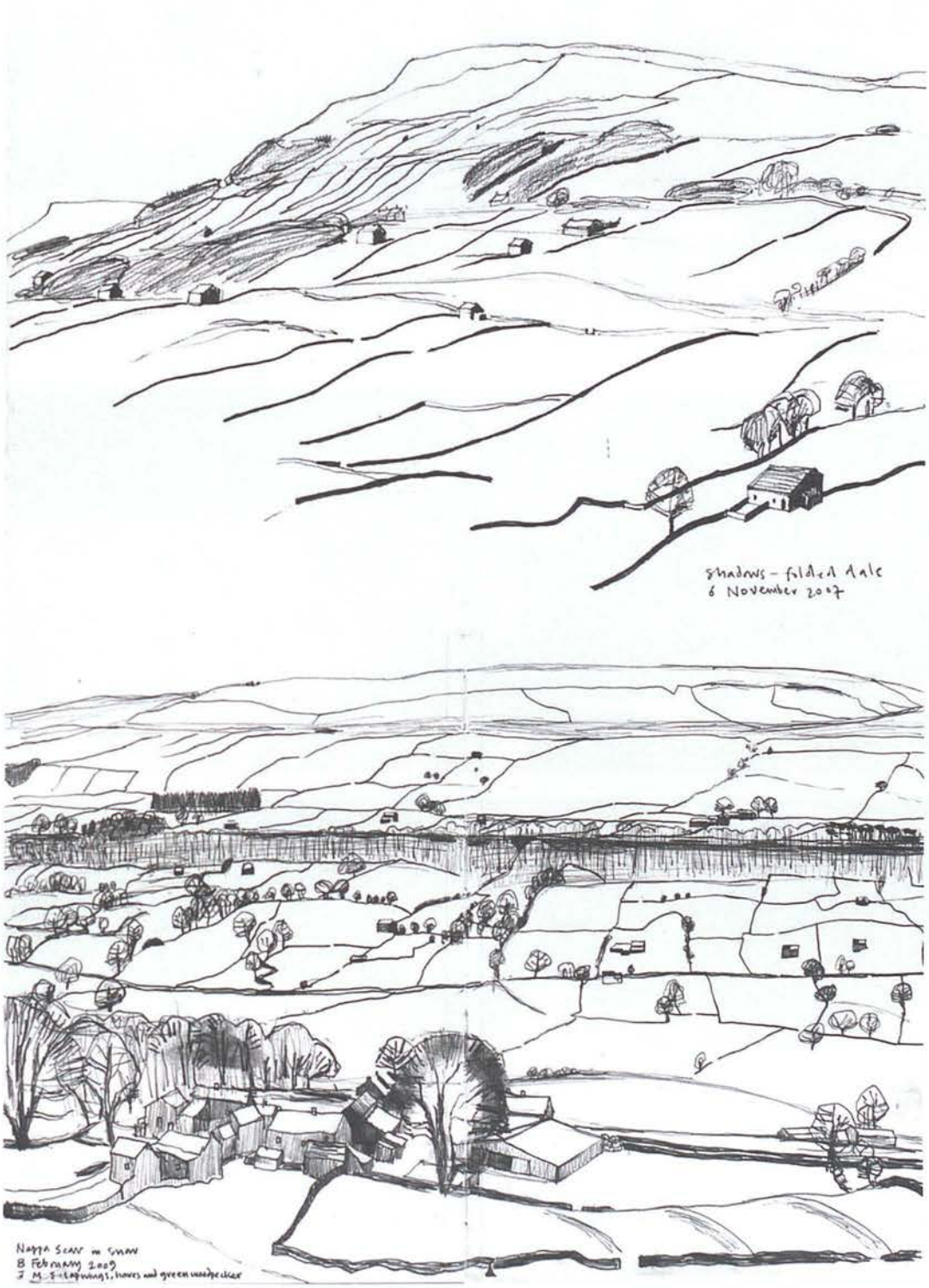


Fig. 6.5: Temporal conditions and the visibility walls, Wensleydale.

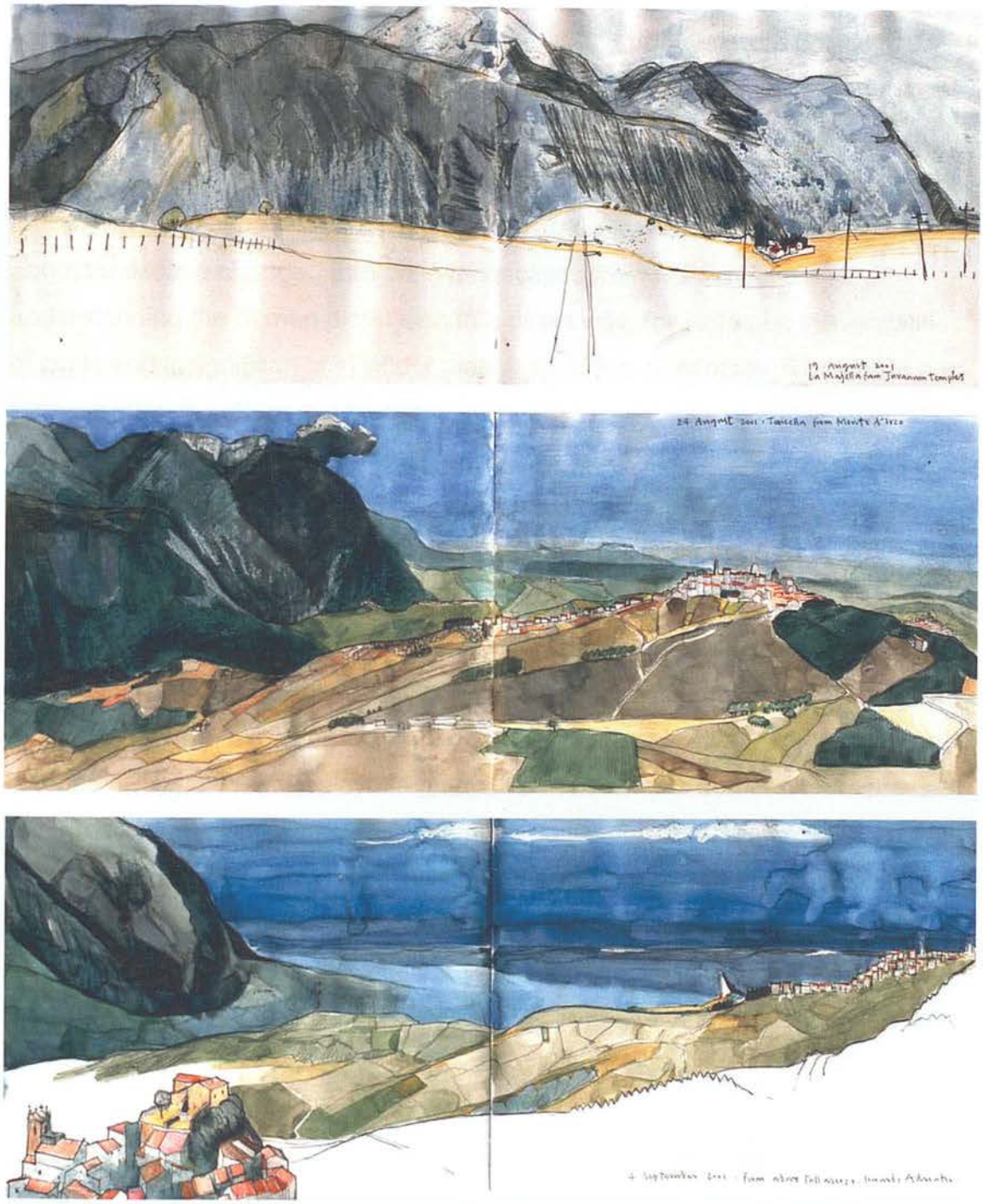


Fig. 6.6: First impression and familiarity with mountainous topography, Iuvanum.

Being in and experiencing the landscape

Experiencing a landscape both from within, *looking out*, and from outwith, *looking in*, are both important and can help an appreciation of how it looks and how it feels. Plan site visits to take in areas of study from external viewpoints, and also internal ones looking through and out of areas. This grounds sketches in a *whole-landscape* experience, which informs visualisations and decisions about landscape change. Exploring landscapes *from the inside* is a way understanding the human dimension in a direct way, for example: vulnerabilities of scale and insignificance in wilder places, qualities of intimacy, time depth and humanisation in cultural landscapes.

Being in the landscape is a multi-sensorial experience. Walking and drawing provide time to take in the full range of sensations over a period of time. These can be powerfully emotive and develop beyond a purely visual experience, particularly in historic and cultural landscapes as we relate to human stories at deeper levels. This contrasts with photographs, which capture a single moment. More gestural mark making, the use of colour and tonal range can denote feelings. Physical features evoke emotional associations that can be expressed and brought out in drawings. For example: an isolated built feature connects to an observer's own isolated presence and connects human narratives, evoking emotions, such as, loneliness, desolation, despair. Places that look attractive, and nice to be in / live in often have a *centredness*, with enclosing lines speaking of nesting, shelter, and families. These can evoke feelings, such as security.

A successful sketch can reflect the variation of attention that occurs when we perceive landscapes: the sketch captures the *looking harder.* The eye is drawn to certain areas of visual or other significance, and observes the detail or strong visual forces that occur. Elsewhere the eye moves over the surface without the same level of attention. Artists and an artistic approach, can articulate visual

experience, common to all. Allow the sketch detail to reflect the experience of a place through variations of line weight and quality: work focal points more and less differentiated areas less. Avoid rendering everything for the sake of completeness. The *looking harder* of forced observation while sketching combines with the human tendency to exaggerate vertical and detail elements. The resulting representation is an interpretation of the landscape, which is something of an *experiential perspective*.

Exploring and moving; identifying viewpoints

How different practitioners move in the field varies. Landscape architects tend to *walk around* to find good vantage points, and *look outwards* from one place to another. This contrasts with traditional archaeological excavation, and many other disciplines, where attention falls on the detail of landscape sites, the practitioner being more or less *fixed* and *looking downwards.* These are both important perspectives. With the latter, movement across landscapes may be restricted to walks in to sites, or car journeys to and fro. However there may be multiple journeys, so the benefits of such movement and associated wider perception and understanding build up through familiarity. Take in wider and detail landscapes and repeat crossings of the same area taking in vantage points from different approaches, and in different conditions.

Perception of landscapes is strongly influenced by movement. Some places make a strong impression of what you think they look like, but when you stop to draw the impression can't be captured by a single view. Drawings from static pre-determined viewpoints may provide a *study of*, but don't embed the wider and more holistic processing of a place and its context. Different forms of ambulation, walking, driving, by train, have different levels of engagement when moving through landscapes. Walk in landscapes to gain a more intimate, individual, and involved experience. Sequential studies and photographs whilst moving through landscapes capture both the changing views of *serial vision*,

and also the many visual facets of landscape that build up to the visual perception, and contributes to more holistic experience. Movement around and within a landscape allows its 3D properties to be appreciated; the form of the land, the structure of spaces. Attention shifts around between features, building up an appreciation of the parts that add up to the whole. Specific *places* become defined, as do *in between* areas, with familiarity. The *doing* of moving embeds a tacit knowledge. Experiencing landscape *in continuum* by walking through them, builds up a subtle understanding of the visual resource:

- The full range and type of view.
- How the view opens out and closes in, and
- Allows the scenery to unfold from the shifts of viewpoint.
- Where the view appears *best,* as landscape the composition of landscape elements change when seen from different angles.

There is a rhythm to walking and observing that takes in the landscape in a more holistic way than experienced or represented by fixed viewpoints, incorporating both the full range of the sensorial experience, and the richness of the unfolding view. Taking in the wider scene, whilst pausing for breath is an opportunity to process this. Indicating information beyond the *natural edges* of a sketch suggests more involvement with the landscape. This contrasts with photographs, which are fixed to a visual moment and spatial frame.

Sketching combines movement / walking and drawing in the field. These activities are important to fully experience and understand landscapes, spatial structure and visual qualities. However, sketching is also purposeful and investigative. Sketching and exploring are activities that run seamlessly together. Approach site work as explorative investigation, rather than collection of predetermined information. Sketching is a transparent and legible method of site investigation that presents enquiry and raises questions. As such it is open to continued dialogue with self and others. Sketching provides another way of

looking, where attention and purpose become very focused, familiarity is built up and *mental maps / models* are readily assimilated. This is particularly useful for: non-eye level / non-natural views (such as overviews), generation of intentionally distorted composite images, taking design decisions, and representing the lie of the land. Also an understanding of typical features, and others that are occasional, or unique develops, and is useful in landscape character assessment, and recognising features of local distinctiveness.

Temporality; light, weather, tides, season

Time on site provides opportunities to experience diverse and changing temporal conditions. Particular conditions enhance and subdue different visual qualities, and thereby influence the legibility of certain landscape characteristics. For example:

- Poor light (hazy and mists), enhances shape and silhouette, such as sub-horizons, horizons, sky-lined features, but subdues topography and colour.
- Contrasting light (low sun angles of dawn, dusk, spring, autumn, partial cloud), enhances form, texture, ground modelling, and surface qualities, but subdues overall form and colour.
- Clear bright light enhances landscape pattern, but subdues form and structure.

Sudden change of conditions has a strong impact on perception and stimulates awareness. Temporal conditions tend to introduce dynamism to landscapes: shifting weather and light, or moving water. This can both engage and frustrate attempts to portray, as the experience of the often-fleeting effects can be more rapid than the action of drawing. The overall experience extends beyond any captured moment. As such, portrayal is necessarily *impressionistic*. Wide-open and large-scale landscapes with *big skies*, such as uplands and plateaux, seascapes and lowland plains, provide opportunity to see atmospheric conditions as contributors to landscape character. Landscape change can be

appreciated. Silhouettes and tangible spaces can be significant aspects, with scaleable elements adding drama. Land use pattern tends to be less important. Portraying such landscapes have good scope for experimental and expressive mark making.

Warm and dry conditions are conducive to stopping and sketching, making more elaborate studies. Poor conditions discourage stopping and stimulate speed. However, even a quick sketch will get essential structural lines and will often capture powerful compositions, both of which can be missed in longer studies. Quick and gestural drawings, which are sketchier and less precise, convey the ambiguity and changeability of the weather. Drawing with soft crayons and brushes, using a range of tones and colour, and the physically running qualities of wash work and other wet media, offer more expressive mark making, and in terms of gesture can be faster to apply. Tonal drawings that depict shifting light and shade, particularly if invigorated by strong contrasts, create a sense of *moment*. Rain is an incentive for quick work. Raindrops and splodges can add a signature of *being there*. Free and gestural colour work associate with changing conditions animates precise linear work associated with topographic structure, in much the same way as weather and light animate landscapes. Drawing makes the best of poor conditions of visibility. Looking harder and selection, reveals and allows emphasis of visual information.

Sequential working; across space and time

First impressions and familiarity are both important, but serve different purpose. Early drawings often capture the essential visual qualities instinctively, with emphasis on aspects of composition and pictorial arrangement. Studies made without foreknowledge of landscapes tend to have poor depth of field. There is insufficient appreciation of the three-dimensional quality of the landscape view. Knowledge of spatial arrangements informs which lines are structural and which are pattern. Allow opportunities for fieldwork to take in first impressions and

time to build up familiarity in different conditions. Complex terrain takes longer to build a dimensional mental model, but familiarity evolves through exploration of a place and making drawings. Walking is a more involved way to explore than car-based site visit. Both the speed of travel and the nature of the physical access to the landscape are important. In uplands explore Open Access land and in cities discover the backcourts and lanes.

Early drawings can be poor: compositionally unbalanced, tentatively drawn, insufficiently selective of *what matters,* missing content, and spatially *flat*: an easy stage to be discouraged. Making sequential studies, either through time of the same view, or in movement across a landscape discover and explore through further study. Drawings follow and represent lines of enquiry: building visual understanding through appreciation of how different elements relate, both as they sit side by side in composition, and how they build up in layers. Reiteration of points of reference across drawings helps to build spatial and visual understanding; constructing a mental model of the landscape. With a drawing *warm up* the gesture of the hand becomes attuned to the observations of the eye, but without conscious effort. It arises through practice. A concentrated period of studies, undertaken rapidly, reduces time for conscious reflection, and enhances the directness of expressive responses. Repeats of characteristic features become like learnt caricature, and are reduced to essential expression. Changing between different drawing materials and techniques through sequential work allows diverse landscape character and visual qualities to be resolved. Aspects of form and mass, compared to structure and pattern may be better dealt with by wash work and line work respectively.

A view is not a static entity but is time dependant. As such, sequential studies of the same view capture temporal qualities, as well as deepening understanding and building confidence and articulation with respect to message and drawing. They can be undertaken on one or subsequent visits, over short or prolonged

periods. A period of prolonged sequential study shows shifts in attention from predominantly the content / subject to the formal visual qualities. The activity of repeated drawing mediates this transition. Reworking of early studies allows the sieving out of essentials from inessential information. Repeated observations embed the visual understanding and tacit knowledge of key angles and proportions through the *doing* of drawing. Simple and essential drawing can more readily be achieved after a period of more exploratory sketchy work, or of detailed analytical study. Less can be done but more achieved in later studies.

A sequence of drawings can develop around the observations and geography of a site visit, with viewpoints across a landscape, relating to the same subject, or to unfolding scenery. Such studies provide shifting angles of view that reveal topographic structures, with changing profiles, and builds up an appreciation of repeated features that underpin pattern. A number of studies reveal and make explicit changes in landscape character, across transitional landscapes, and can represent the experience of serial vision, as captured in unfolding views.

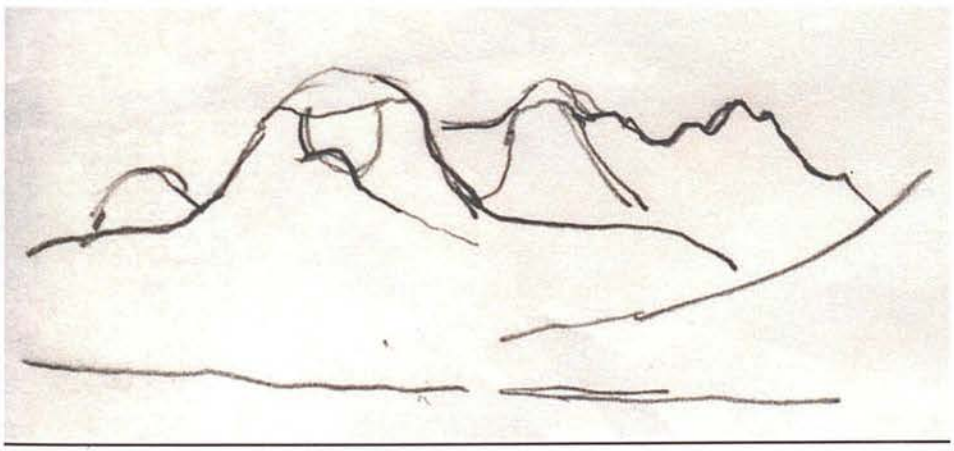


Fig. 6.7: A quick thumbnail sketch to indicate the mountain summits, which became visible only after a more elaborate study of the Torridon Mountains had been made.

Thumbnail sketches are supplements to the main image on a page, or there may be a series of such studies on a single page. They can be used at a

preparatory stage to test ideas about composition or mark making; or to capture afterthoughts and realisations, gained through making the main / initial study. Such sketches make explicit some essential qualities, such as important visual and spatial qualities. The thumbnail sketch can extend the image to:

- Take in a wider view.
- Explore, explain, or further emphasise aspects of a drawing.
- Add information quickly, such as dimensions, tonal or colour notes.

Drawing in the field, and associated site notation

Drawing in the field, and associated site notation principles are drawn together from the practice observations broadly grouped around Drawing as craft and expression, and Field sketching.

Drawing as craft and expression

Illustrated examples

Drawing for pleasure around home, sketches range between and fuse more analytical approaches, typical of landscape architectural practice, with freer more artistic work exploring visual and abstract qualities – and just enjoying the use of materials. Often walking with a small sketchbook and a couple of pencils, the limitations of mark making don't hamper but seem to extend the ability to connect with how a place makes you feel, rather than how it appears.

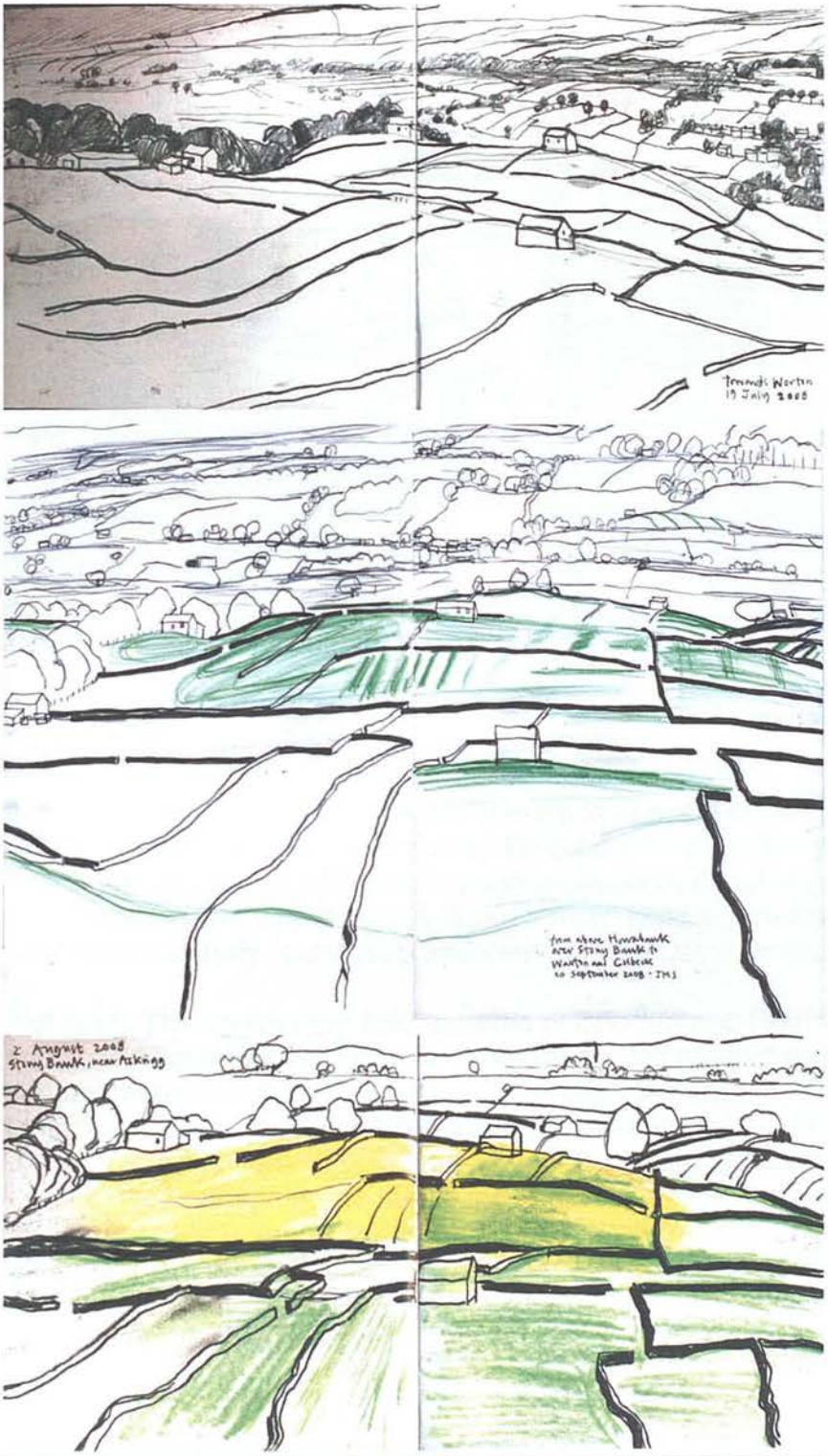


Fig. 6.8: Wensleydale fields, representational.

Fig. 6.9: Wensleydale fields, abstract.

Following pages:

Fig. 6.10: Two drawings of Kisdon, the top in pencil line work and bottom in *Oilbar* and coloured pencil with line. Whilst drawing the linear qualities of the walls achieved form and mass through implication, constructing the *wire frame* of the wall pattern was difficult without a more solid suggestion of the landform. The more painterly application and marks of the *Oilbar* provided this base.

Fig. 6.11: The contrasting field patterns at Angram and Peat Gate; the former ancient enclosures over irregular topography, are organic and create a *clover leaf* aesthetic that draws the eye, compared to the latter where the geometry of the later enclosures extends out against a smoother dale side slope, and finds synergy with the lines of built form and roofs. More sensitive exploratory line work is used to capture the subtle intricate relationship between the field and settlement patterns, and landform, around Angram. Strong line work that addresses the abstract qualities of pattern is used for Peat Gate. The line remains lively, but variation arrives through enjoyment of drawing the line itself, rather than representation of the wall lines.

Fig. 6.10: Kisdon drawings, working with pattern and working with form.

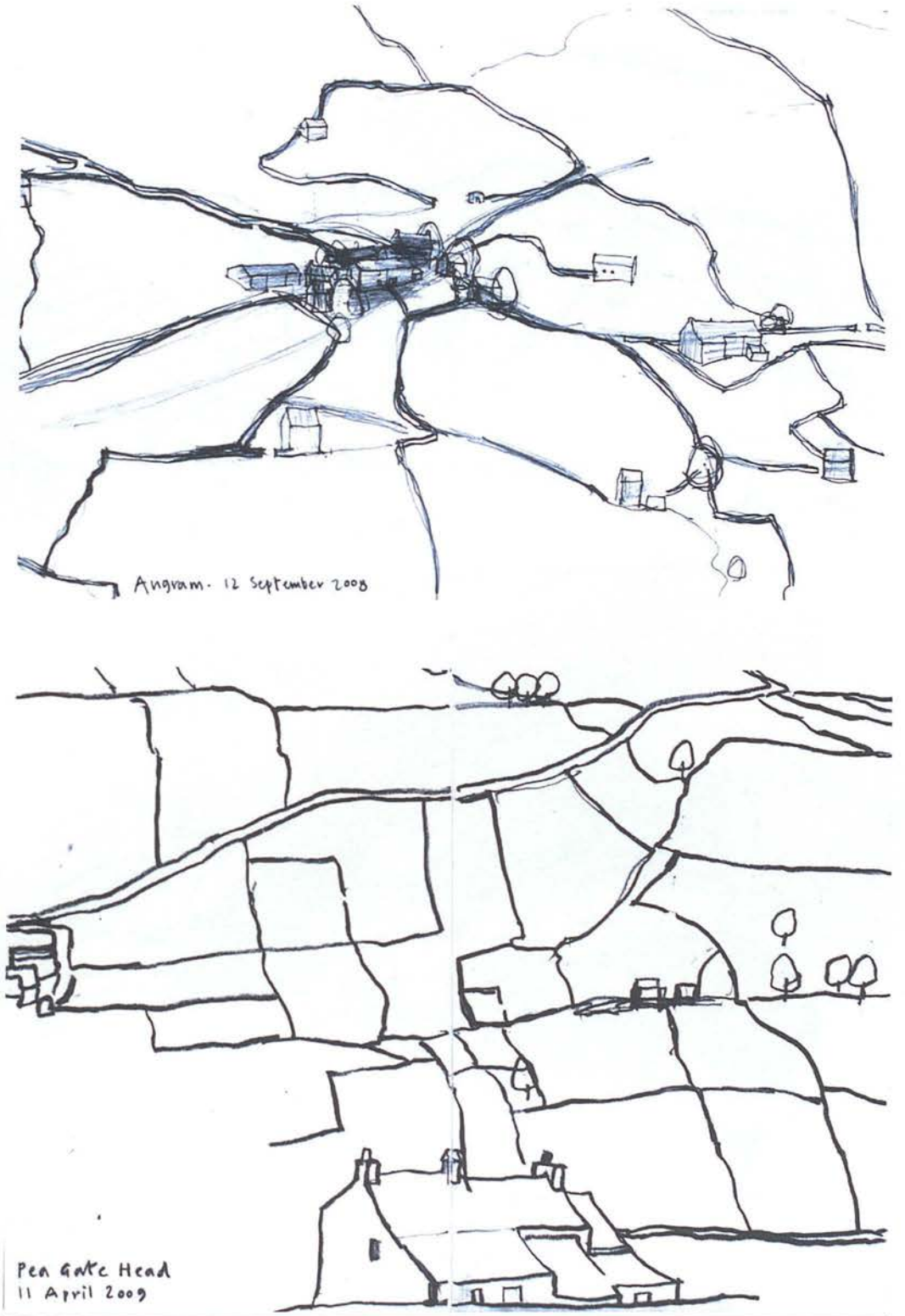


Fig. 6.11: Contrasting wall patterns and line quality, Swaledale.

Fig. 6.12: Finding pattern through shape, Seal Houses. Meticulous observation and controlled drawing in the upper study of Seal Houses fails to show the visual potency of the field shapes. Using colour in the lower sketch to try to capture the resonance of shape, and then overdrawing with a waxy and responsive pencil created a more powerful interpretation of this simple landscape, where the visual qualities are stripped to line and pattern.

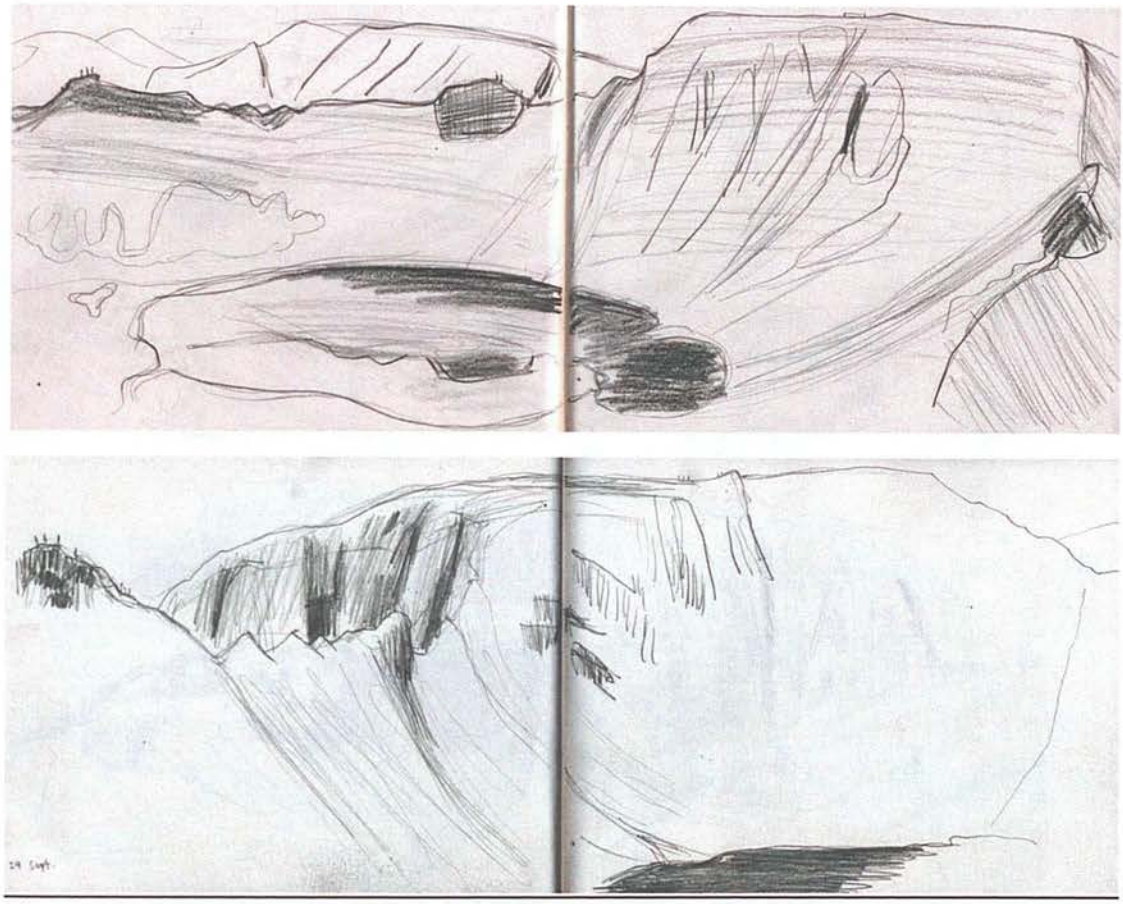


Fig. 6.13: Human scale in the landscape, Helvellyn.

Representing the human presence on the mountains was key to indicating their scale, and in emphasis of the mass of Helvellyn compared to the thinness of Striding Edge.

Fig: 6.14: Striding Edge, suggesting recession. In the final illustration a range of graphic devices were used to indicate space and distance: changing level of detail, colour balance, and through the suggested effect of *perspective* and foreshortening on features.

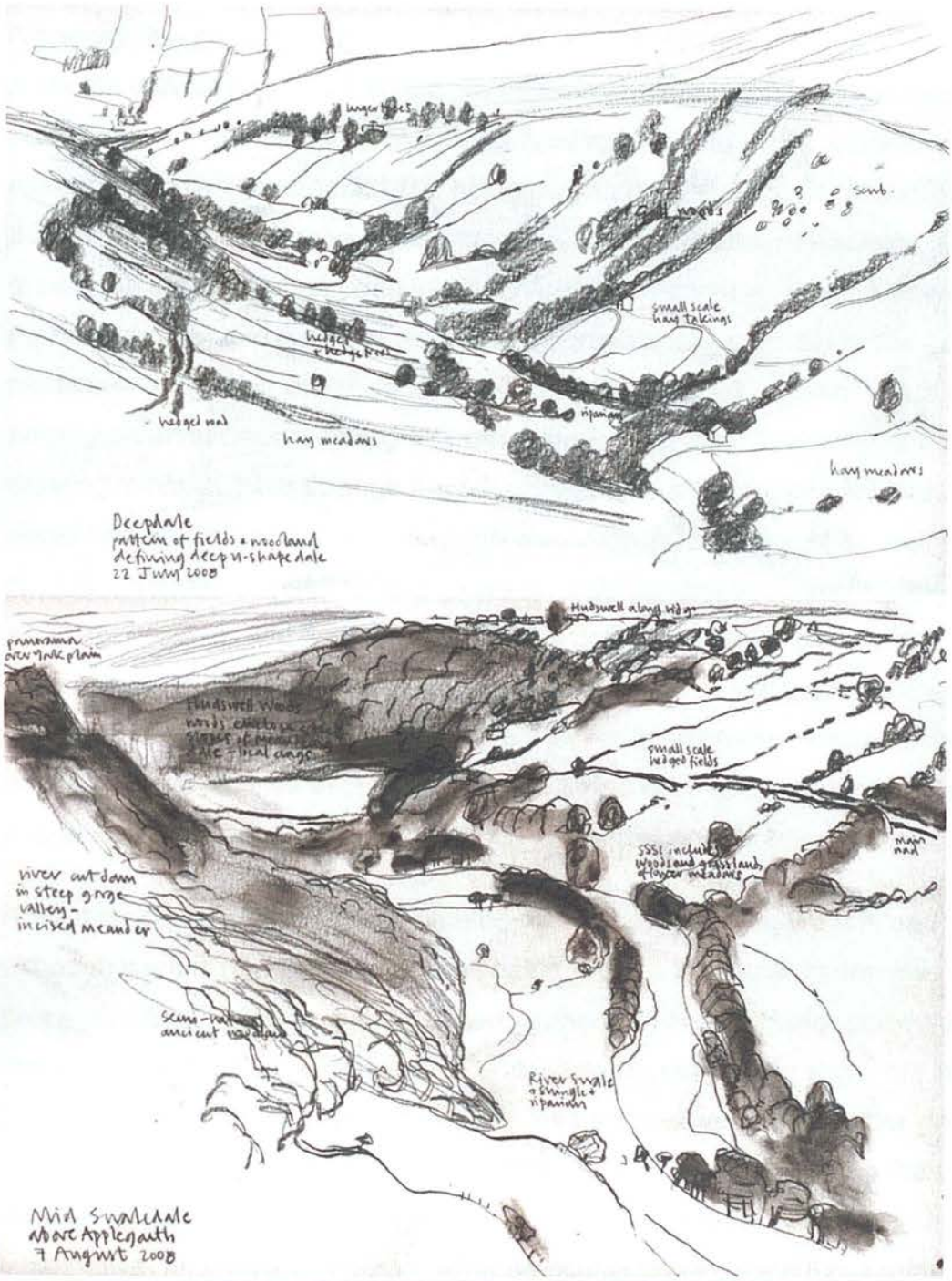


Fig. 6.15: Woodland pattern and local distinctiveness in the Dales. Simple pencil shading represents woodland pattern by differentiating between the *figure-ground* of tree cover against open fields. It can be seen in both these cases that woodland pattern is an important aspect of local distinctiveness, both in itself and how it contributes to the legibility of the different dale slope types.

Materials and mark making

A sketch can fuse an analytic and problem-solving approach, such as used by designers, with the craftsmanship and visual insights of a more open and explorative artistic approach. The sketch works between the visual qualities of the sketch itself, and those of the landscape that the sketch references. As a drawing activity it is embedded in an arts approach and concerned with *what matters visually.* However, while artists are traditionally considered *the* craftsmen of drawing materials and techniques, non-artists can be artistic and employ an artistic approach by following relatively straight forwards principles. A drawing is constructed through the observation and representational plotting of visual and spatial relationships through line. Artistic rendering of an image applies materials, in patches and layers to: build up structural lines throughout an image, apply broad washes to unify, and detail line and colour work to differentiate areas. Later highlights pick out features. In the process of working through themes or areas of the scene to try to both represent, and balance the image towards a sense of completeness, intentions for and interests within the image change. This is an open dynamic of exploration and investigation.

Artistic processes tend to be dominated by the individual's approach, and although work is often appreciated as being within a particular genre, the processes aren't subject to generalised methods. Techniques for particular materials are traditionally taught and understood in systematic ways, but the artist will adopt and adapt these to serve their expressive needs, rather than be slave to an external method or conventions. Approaches range from more rational and analytical to more gestural, emotional and expressive work, from imaginative, figurative to abstract. The emotional power of a subject may be more inspiring than a cerebral understanding. Artistic work can access and capture emotional experiences of landscape.

The specifics of the landscape subject and required representational and interpretive purposes will influence the type of mark making, controlled or freer. Different purposes of observation, description, analysis, or communication, require and stimulate different approaches. With a complex subject, such as crag faces, which cannot be adequately or quickly enough be observed and / or represented, artistic rendering allows continued ambiguity in the interpretation. Hierarchies of line and codes of colours that are rooted in observations can be used to rationalise and emphasise meaning. A technical approach to illustration, without artistry, becomes as dense and abstract as technical text; impenetrable to lay persons, but acceptable codified images for technical experts. An artistic approach to communication draws on more human ways that tap intuition and less rational aspects of thought: a process more akin to conversational flow.

Different materials have particular qualities and potential benefits. The materials used in the researcher's practice include, pencils, pens and nibs, watercolour, wax crayons and *Oilbars.* Pencils, for example come in a range of grades, colours, and non-fluid materials: graphite, water-soluble, wax-oil, charcoal, et cetera. They make a variety of lines, have no drying time and are a travelling material par excellence in terms of carrying convenience. An easy to use, low tech and cheaply available drawing instrument, pencils are responsive to gesture and pressure: good for expressive and controlled line quality and indicative of mass through line weight. Pencils can work between linear and tonal work seamlessly, and soft pencil shading across work can act like a wash, dropping in tonal distinction without suggesting texture. This compares to pens and nibs, with ink based, fluid materials, of fixed nib and line, which tend to be used for unambiguous and assertive line work. Whilst spontaneous to more controlled work is possible, the reliable, measurable, consistent marks can serve more technical purposes and style.

Other field sketching materials that haven't been considered include the various soft and oil-based pastels. These tend to be moving towards more painterly work and need special papers. All the materials considered can be used on light to heavier weight cartridge papers. Mixing media and using non-standard techniques with materials that either do mix readily and blend, or don't, can be used to create diverse effects. The experimental potential of mark making within a relatively limited range of easily transportable materials, makes the possibilities and versatility of field sketching considerable. Diverse media combined with linear and rendering techniques, can be used in building up layers and arrangements of pigments, well suited to portraying landscape subjects. However, the simplest sketch with a stub of pencil on a scrap of paper, or a few marks improvised with soils and plant materials, or etched lines on a flat stone, can also create an impression.

This thesis concentrates on line work based sketching, and in a more general sense sketching tends to be associated with linear work, rather than more painterly techniques. Line quality and weight has a range, both through the wide selection of drawing instruments, from the fixed qualities of pen nibs to pencils, crayons, and brushes, which are more sensitive and responsive to the pressure of the sketcher's hand, to the diverse ways that a particular instrument can make marks. Emphasis in an image can also be achieved with more and less worked areas. Using different types of field sketching techniques serves different purposes with respect to understanding of, engagement with, and presentation of landscape and visual qualities. Colour studies can be more holistically descriptive than linear work. Selection of the linear visual qualities is a deliberate level of analysis, and a positive rejection of colour information. Authenticity of mark making relies on the link between process and outcome: a precise line that is inaccurate / not rooted in observation is misleading, whilst a sketchy drawing can arise through careful observation, and be very accurate. Ambiguity of line work means that the understood accuracy of the information is

lost. Ensure honesty and distinction between, for example, observed precise expression and more casual *fill in* marks.

Gestural and expressive linear marks can give a powerful sense of form and mass through the use of line weight and qualities of line movement. The gesture of drawing the line responds to the observed impression and imagined touch of concave and convex surfaces. The hand action follows the gesture of a touch, and thereby through drawing we recognise structures. You *know it*, even before the eyes have consciously seen it. Therefore the drawing of landform emerges through both a pre-conscious tactile imagining, and conscious visual observing. The drawing of shapes, and the patterns shapes make up, should engage with both the more static but resonant form of shapes, and the dynamic qualities of outline. Sketchy lines can be used to explore form and shape, the gesture of the hand describing the forms, as it would through touch. Through the gesture of drawing you literally *feel* the lie of the land. This informs the drawing, and also the understanding of topography. An accurate drawing of, for example, field patterns, or other *linear nets*, must focus on the field shapes / internal spaces, seeking the linear outlines through an appreciation first of internal shape. Expressive drawing is like a proxy for touch, offers a tactile engagement with the landscape. Spontaneous work with expressive and gestural mark making is more arousing and engaging emotionally, connecting at intuitive levels, which can operate more quickly than conscious thought.

Scale and distance; showing depth of field, space and recession

The presence of scalable objects within a view is the most ready way that we can appreciate and read distance. In the context of the real view a sense can usually be gained, even without such, but never-the-less landscapes can feel larger or smaller than they actually are, distances are not always made explicit. Some exaggeration of the size of features is more realistic to the experience of looking, but too large misleads. Where no definitive scale references exist

figures can be introduced to provide a sense of scale, although they carry narrative implication, so must be used appropriately.

The scale of a landscape has a big impact on our experience of it. Even without specific scale references, a sense of distance can be implied by relatively little information, and is understood also through human optics, and how actual distance affects clarity of vision and hues of colour. Contrasting atmospheric effects of light and dark are important in being able to read the scale of such landscapes, both in adding definition to receding layers, and in providing animation and temporal dynamics. Whilst the experience of large-scale landscapes can be powerful, and distances *felt*, this isn't necessarily underpinned by strong visual qualities. Therefore capturing the *experience of landscape scale* can't readily be achieved through traditional forms of pictorial representation. Use of colour and more expressive mark making indicates atmospheric effects, and through implication, space and distance. This is also more expressive of emotional experience, and is emotive to look at. *Big skies* and weather become more dominant landscape characteristics in larger scale landscapes. Separation of landscape elements provokes a sense of distance, remoteness, and where the elements are human, loneliness. Clustering of landscape elements in more intimate areas suggest family and community.

The juxtaposition between foreground, mid distance and background fields of distance is a well-known and used pictorial convention in both fine art and photography. Differently expressive marks, rendering, tonal areas, or colour hues denote the different fields of distance. This may show more gradual gradation, or dramatically contrast, for example simple strong line work in the foreground, with a rendered mid distance. Strengthening the outline of features that edge each field, such as sub-horizons, tree canopies, and rooflines, add definition. Compositional framing devices create the sense of looking through to an area distinctly beyond. These could be wider landscape scale, such as

valleys, or the detail scale of tree trunks. Establishing foreground, mid distance and background fields within a representation of landscape makes for a more successful image with spatial depth and interest. The concept of *here thereness* recognises the interplay of *'a known here and a known* (or unknown) *there';* (Cullen, 1990, p35) where one part of a composition can be *played off* against another to intensify the visual effect and suggest distance.

The presence of geometry within landscapes is a factor that contributes to the sense of apparent scale and recessional depth. Landscapes with geometric lines and patterns, or with geometric features, are legible and can be represented, according to the rules of perspective; parallel lines receding to a vanishing point on the eye level. Landscapes dominated by natural and inorganic forms are difficult to read and represent in terms of their depth of field. This is especially so where no other scale reference exists. The non-geometric shapes do not lend themselves to perspective. Perspective drawings can be constructed according to a series of principles and relatively easy to follow stages, based on measured plan and elevation information. Alternatively the visual consequence of perspective on geometric landscapes and features can be accurately plotted and sketched. Where perspective principles are used, even in un-measured or constructed quick sketches, it introduces recessional movement and spatial plausibility in to a drawing. If a drawing should but doesn't obey the rules of perspective it will *look wrong.* Perspective lines on a page draw the eye and become significant compositional forces. Use good compositional principles, such as the *Golden Section,* to maintain a pleasing visual balance, and avoid incongruous lines.

Representing foreshortening is a common issue in drawing, as the tendency is to show more of the foreshortened surface than is visible. The observer knows the space exists and the impulse is to show this. However, showing the surface effectively tips the apparent angle of view. With flat ground, such as lowlands or

elevated plateaus, or where there are features of natural separation such as the sea, estuaries or lakes, natural viewpoints often result in landscape subjects being seen foreshortened, as the eye level is just above the ground surface. Looking across any sloping ground, upwards or along, the surface appears foreshortened. Viewpoints with less foreshortened perspective, such as from slight elevation, better show aspects of dimension, form and pattern. Placing emphasis on the *leading edges,* larger in size and more defined in outline, and of distinctive profiles and shape, spatial definition can be enhanced. Focusing attention on well defined foreground elements and rather less to the background, and leaving blank paper, implies space.

Static physical lines in landscapes can be perceived visually as suggesting movement in a scene. The suggested movement implies a crossing of space and also can have a quality of time, such a path being the trace of a journey, rather than merely the route. There is a *visual force* to the line. Use linear features as key compositional elements. Allow the gesture of drawing to *follow*, as might a pointing gesture, with the quality of lines and marks making the sense of movement explicit. Visual forces lead our eyes across landscapes. This may signify the features' functionality, such as roads, or have a more metaphorical association, such as a snaking river or a climbing wall. Lines also express of scale and distance.

Dull light, poor choice of or opportunity for a viewpoint can *flatten* the recessional depth of a landscape. Graphic devices can be used in drawing to manipulate and strengthen the portrayal of scale and distance. As well as through geometric constructions, depth can be portrayed through line weight and quality, scale of rendering marks, tone and hue.

Landscape character and visual qualities; topography, pattern, texture

Specific qualitative aspects of landscape character are recorded through field sketching and photographic site survey, which are not available from more abstract data. Three-dimensional qualities of landform and surface texture, and local details, are particularly difficult to interpret without fieldwork. Drawing a landscape helps to understand the different physical characteristics and visual qualities that create the distinctive character. Attempting a representation prioritises the strongest visual cues, be they line and silhouette, or repeat and pattern. However, in any given view there is likely to be more qualitative information than it is necessary, desirable, or possible to represent. A photograph portrays all information, but does not represent the experience of landscape character. A sketch selects out the characteristics that are consciously, or less consciously processed through observations or more analytical assessments. Both doing and looking at a drawing connects description of the physical character of a landscape, and the more abstract visual qualities: rooting in reality but seeking out abstracts. Representation of landscape character allows the viewer in, and abstract visual qualities underpin our responses, perception and experiences.

Different graphical devices can be used to suggest landform, the pattern of land cover and land use, features and surface textures. Visual qualities that best express the experience, or perception, of landscape character should be sought. In a complex and detailed subject the strong organising structures are a staring point. *Figures* and their *ground* / objects and context can be interchangeable in landscapes. Physical characteristics are understood through their spatial setting; space and *field* is a positive part of form and pattern.

Like people, landscapes can be captured through caricature: with key lines, identifying profiles and silhouettes first, allowing the brain to fill in information.

Graphic devices can be used in drawing to manipulate and strengthen the portrayal of the different aspect of landscape character. Character can be portrayed through outlines, line weight and quality, type and gesture of rendering marks, tone and hue. Be aware of key or defining visual qualities, as compared to subsidiary ones for a particular landscape: emphasise the essential and leave out as much information as possible. Important structural lines include the watershed horizons, the broad sweeps of a river, the cross profiles of valleys and ridges, and shapes of landmark summits. Patterns of land cover and land use can be simplified to essentials. They tend to lie like drapes of fabrics. If shown in detail pattern may confound an understanding of structure. Field sketches can capture *personalities* of places, with strong visual signatures. Landscapes with strong graphical visual qualities, such as topographic grain, or field pattern, are captured well with simple drawings. This is particularly the case where they have simple or singular qualities. Complex and composite layered qualities may require a different approach.

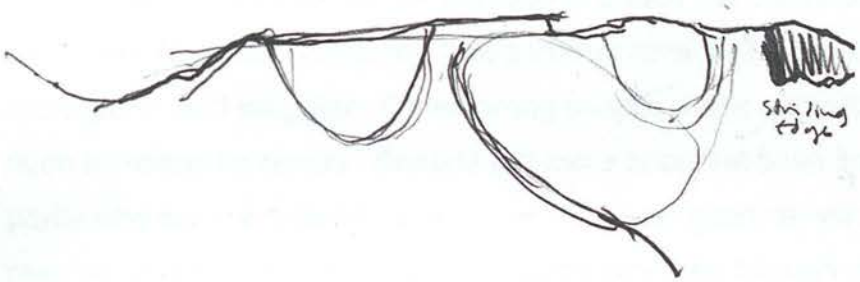


Fig. 6.16: Helvellyn *caricature.*

The value of scenery grows out of a common response to beauty. Beauty is appreciated through various routes, but all tend to be underpinned by certain physical characteristics with recognised *types* of visual quality: the combined terror and beauty of the sublime, composed elements of the picturesque, the intrigue of patterns, and the formality of the axis and geometry. An enjoyment of

looking and pleasure at the sensation of a pattern or colour can be reiterated through the drawing of those sources of pleasure. Looking at a sketch can be another reverberation and response to the initial pleasure, or for a new viewer the sketch can stimulate that in them. Beauty moves us: sketchers and viewers. With landscapes, the landscape is itself a created artefact and the response to beauty may be rooted in the craft and consideration of construction of the landscape features in the first instance. For example the delineation of field shapes as the waller works is a response to both the practicalities of enclosure, and the satisfaction of craft and doing a good job. The lively responsive line of a hand built drystone wall, and the gesture of representing it in a hand drawn line both contribute to the visual quality of a field shape and composite pattern.

Artists explore the visual resource of landscapes, responding to different aspects, including beauty. An artistic approach can also be used by non-artists to access visual qualities. In complex views pictorial qualities can tend to dominate and subsume individual visual qualities. Scenic qualities support multiple visual qualities, which enmesh to create the complexity of a view. We are drawn to patterns and find field patterns attractive, particularly where they are organic and irregular. Other strong shapes make compelling visual qualities, such as meander bends. Shapes are more apparent seen from above, which is partly why we are drawn to overviews. Shapes resonate with one another: this may be physical, visual, or poetic. Poetry emerges through metaphor as a physical form echoes with another visually, or is suggestive of something else, or of an emotion. Field patterns respond to the topography and to the functional farming need. The physical and resulting visual relationship between the cultural landscape and the lie of the land is a founding principle of the scenery of traditional farming systems.

The physicality of particular scenery is generally static, changing between places, but staying relatively fixed within them. Visual qualities depend on our

perception, and therefore whilst there may be commonly recognisable aspects inherent in any scenery, these will vary according to the individual: who is seeing them, what values they bring (such as familiarity, or associations), and what conditions they see them in. Aesthetic quality is a relative value and shifts, but the potential of scenery, or landscape character to support a range of predictable visual qualities is reliable. In defining scenic qualities we should factor in the fixed aspects of landscape character, and the fluid potentiality of visual qualities, along with any prevalent factors that influence them. In this way *scenery* can become something tangible and understandable: a resource that we can define and manage through recognising potential benefits and harm.

Where the experience of a place is powerful, it can be difficult to feel satisfied with a sketch. In part this is because dealing with the visual qualities is only part of the holistic experience, so a drawing disappoints. Perhaps we most readily attribute positive experience with 'enjoying the scenery' and assume it is a response to beauty, when in fact the sensations are more than purely visual.

Drawing helps distil emotional responses. Metaphor can be used analytically and creatively to energise representation, and spontaneous drawing taps intuition. An arts based approach can record, celebrate, and articulate visual and scenic qualities. Whilst features and landscape characteristics can dominate visually, it is not always apparent why or how they contribute to the scenery. Drawing can pull out and communicate the *lines of beauty* that are components contributing to a landscape's recognised scenery. Drawing helps to reveal the relationships between visual qualities, and the scenic quality or beauty that arises from them. Drawing articulates the act of observation, and its communicative strength relies on the same processes of observation by others. Sketching helps identify the spatial roles of landscape features and their settings, their contribution to the scenery. Spontaneous drawings, executed with little familiarity or preparation can seem to arrive from an *inner vision* and be

authentic to the moment. This type of drawing and impulse sees through the surface pictorial to fundamental visual qualities.

Field sketching

Illustrated examples

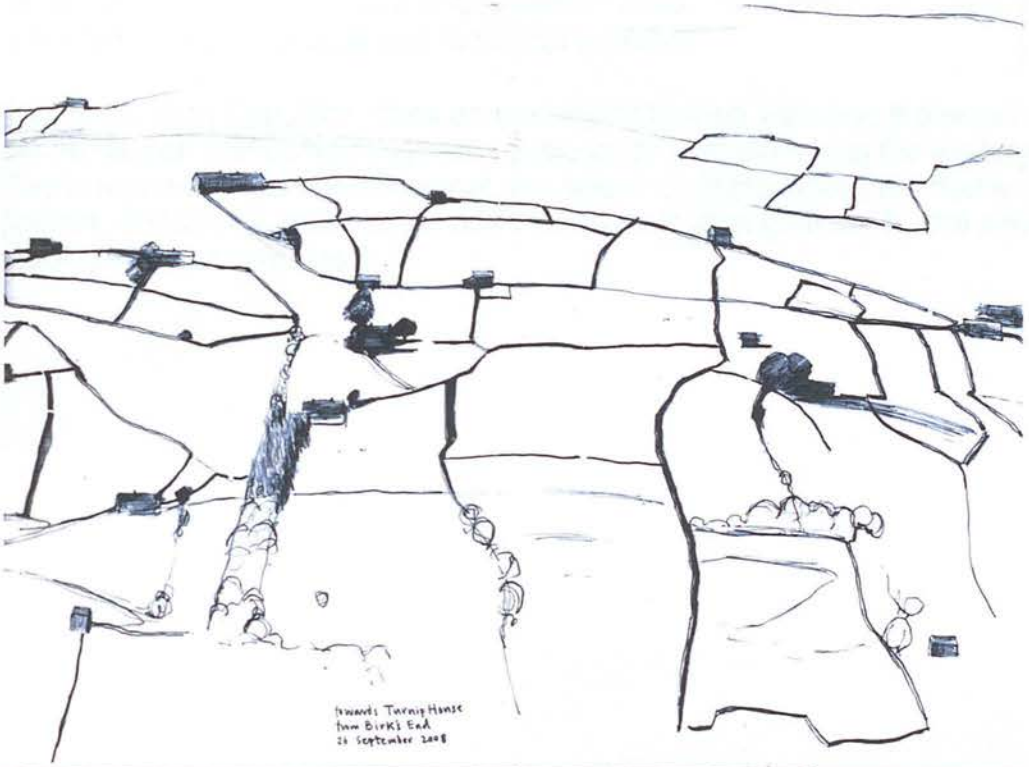


Fig. 6.17: Meditative drawing practice, Swaledale. A slow meditative drawing in low autumnal light, concerned with observation of the shadows in the landscape, which seemed the only presence as the originating forms of walls and buildings dissolved in the mists. *Being in the moment* in the Dales can simultaneously have a sense of being *out of time,* as qualities of remoteness and a tangible sense of history are so strong. Sketching seems always to occupy some mental *other place* and drawing can be more and less meditative as circumstances allow.

Following pages:

Fig. 6.18: Two site notebook pages with annotated sketches: the upper study whilst lone working in the New Forest, and the lower more opportunistic sketch on an accompanied site visit to Glenmore Forest. Both make the gathering of information explicit, visual and technical research.

Fig. 6.19: High Cup Nick offers an archetypal framed view and the sketch is to some degree *self-composing.* However, for all field sketching the sketchbook forms a primary compositional tool, the edges of which create the frame and format. Below, the mass of Kisdon's shoulder is strengthened by the square format that just contains it.

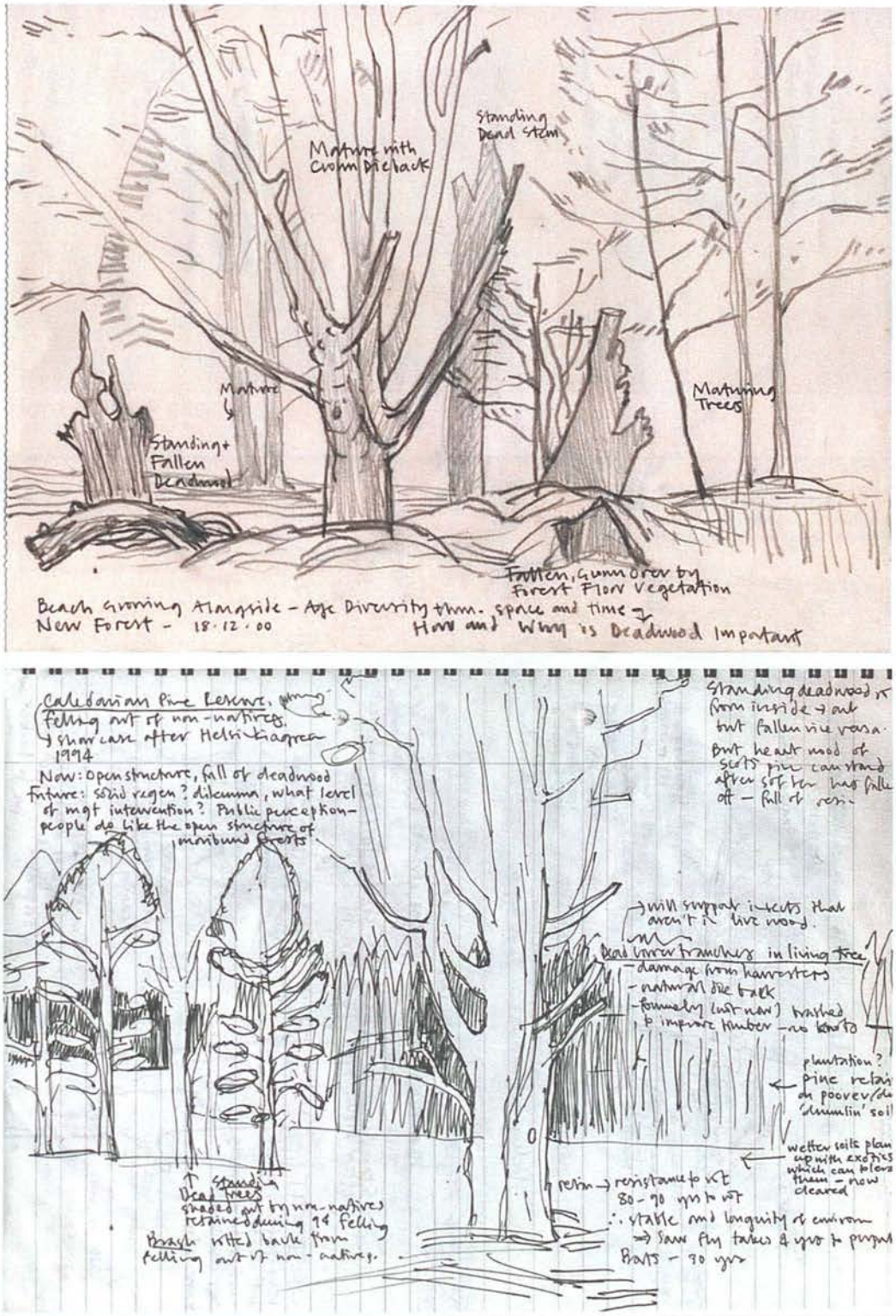
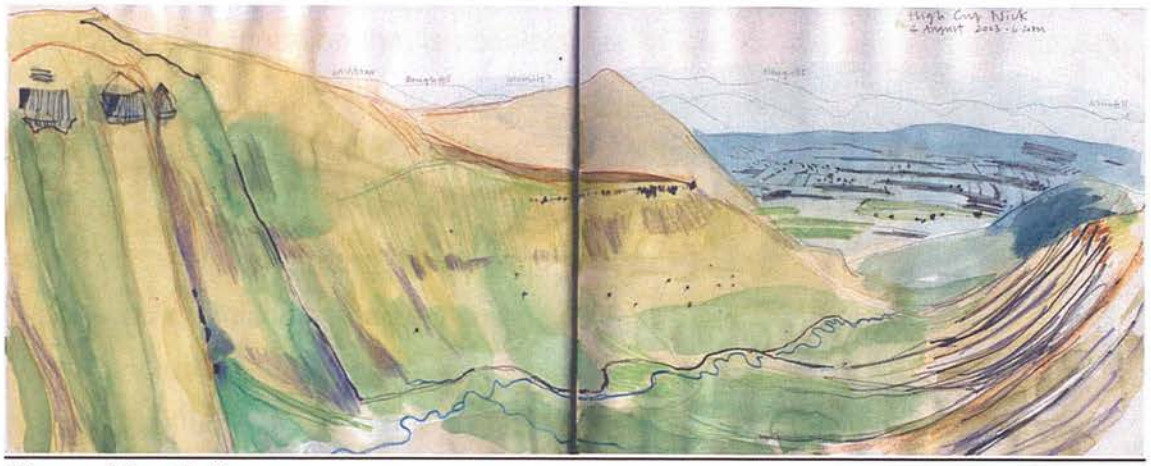
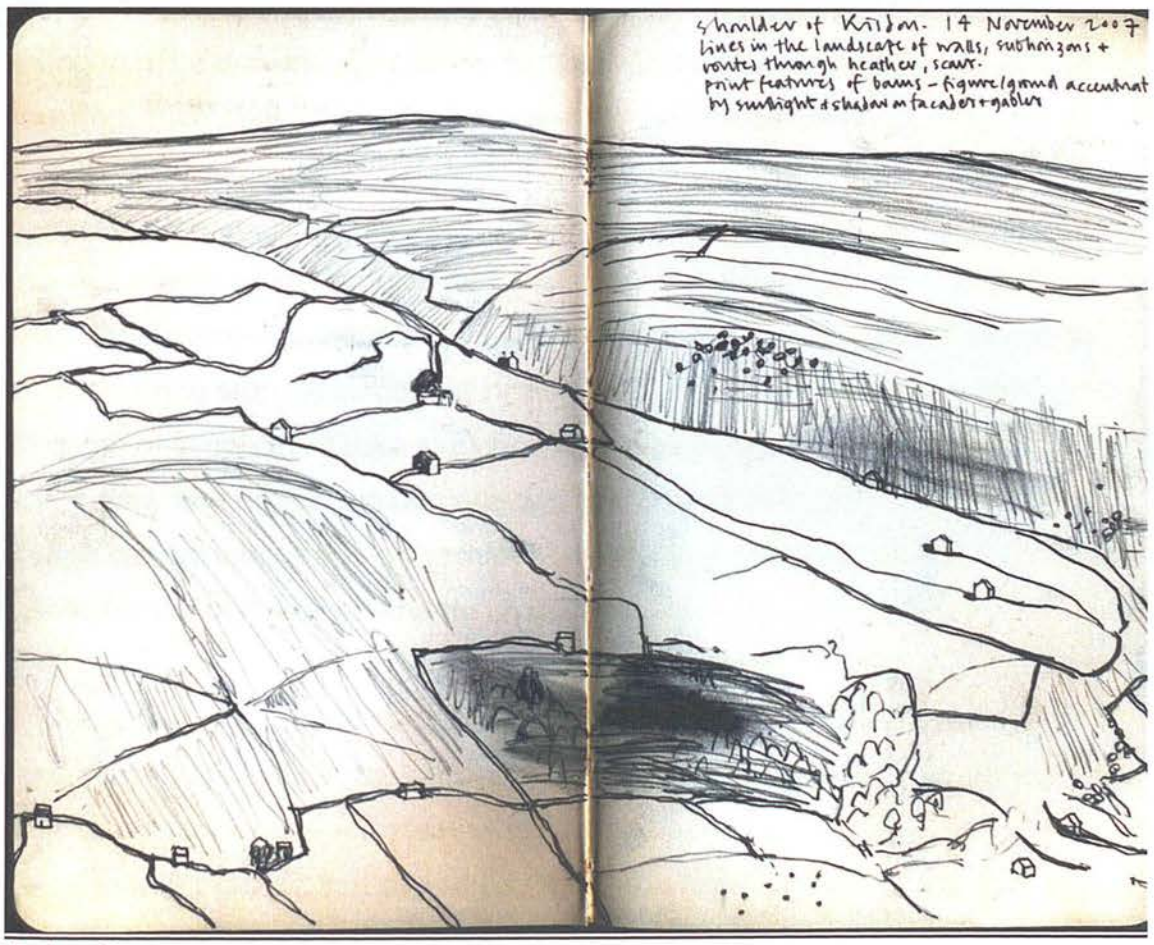


Fig. 6.18: Annotated sketches, research tools in the Deadwood project.



Flora of the Fells



Dales Scenery

Fig. 6.19: Contrasting formats, the sketchbook as a framing device.

The stages of a sketch

The type of site notation that is possible due to circumstances, or suitable for the subject, may not be the same. Available time, concentration required, and weather conditions all influence what is possible. However, field notation and drawing in the field are flexible techniques using simple materials. It is important to set suitable parameters for a drawing at the outset by thinking through the likely scope. This is helped by working with an appropriate level of detail and scale, and using suitable materials to achieve the drawing requirements: free flowing, gestural, or measured. Working at too small a scale results in a fussy drawing with poor line quality. Whilst a poor drawing may still have value in terms of observation, energy and concentration will be wasted on the craft of trying to get a drawing *right*, at the expense of the other beneficial aspects of drawing, such as analysis, design, visualisation, and communication.

A drawing is selective as a process, taking visual information out of the totality of the real situation, and is practically limited as to what can be included. It is important to force attention on to *what matters,* omit superfluous detail and to know when to stop. A singularity of drawn statement makes a virtue and strength of simplicity. Quick sketches can be most effective as they have an immediacy and honesty to purpose and grasp essential qualities. A complex image can be too full to view comfortably. Outline, linear rendering, and text can all vie for visual attention, and result in confusion.

Quick impressions of the compositions can be used to test ideas, from a rapid assimilation of key shapes, setting out and leading lines, point features and focal points, and self-contained areas with distinctive patterns. This stage becomes intuitive with practice, but should be undertaken consciously by students, or where complexity of the scene merits more conscious consideration. The composition is a critical first stage, setting out the framework around which a

sketch or longer study is built. Testing the ideas visually, without high input of time, is an investment.

On occasion the stage of *giving up* can release energy back in to a drawing and reinvigorate the practitioner's interest and motivation. When a sketch seems useless, it can be used as a basis to put down corrective marks, disregarding the earlier work. It becomes possible to achieve uninhibited work, free from fussiness, more focused, with strong engagement to the subject, as well as with the materials and expressive aspects of the drawing. Later drawings can be more precise as tacit knowledge of the subject is built up through reworking.

Drawing can help you understand how things have grown, fragmented, or are made and constructed. The process of drawing to represent makes you look carefully to see how elements relate to one another spatially. This may involve a physical measuring and scaling process, or with practice can be done by eye. The gesture of a drawing follows the seen arrangements of elements and assembling these accurately provokes an understanding of how they came together. This applies to tiny objects, and the whole landscape (as natural processes and cultural artifice) alike. Sketching with a clear purpose can lead to a resolved drawing, but sketching can help resolve the purpose of a study. The drawing is in itself an investigation of *what matters* visually, and also of how things work and came about. A practiced hand can reach quick understandings of landscapes, intuitively arriving / *leaping* to essentials.

Sketching, and in particular drawing, can be a meditative process, through its concentration and exacting observation *holding you in the moment*. Drawing holds attention on each detail, working in between observation of the landscape, and its portrayal on the page. The pace and direction of drawing is driven from both observations out with and internal processing: it is important not to be hurried. A deeper state of understanding can be accessed, which results in both

a good drawing, authentic in marks to purpose, and a more meaningful experience of being in the landscape, with all the associated benefits.

Annotations on site can arise through discussion, or when lone working. In either case they have the character of an added dialogue mediated by the sketch. The process of labelling and annotation as part of the sketching process forces observation, builds up additional layers of information, and points out meaning and significance. Annotations gather non-visual information, and information not practicable within the scope of the field sketch, eg. colour notes. It also notes questions for later research and verification, prompts further explanations, and acts as simple labelling and identification._A sketch shows and implies information, but annotations make meaning and communication purposes explicit. Annotations help to root the drawing in the process of observation. By providing a sense, and potentially sequence of *what mattered,* and bring an additional analytical level to the descriptive sketch: the *so what* and *therefore* thinking. Hand written annotations on sketches or sketch visuals (and final visualisations) retains a human dimension / conversation, which suggests an ongoing open dialogue, rather than definitive finalised fact. Annotations re-invigorate the investigative role of sketching, and shift attention back to the observation from the activity of representational drawing.

Composition

The fixed qualities of dimension and paper type in a sketchbook both create a consistency and framework, and set limits for field sketches. The sketchbook is essentially a framing and recording device, and sketchbooks come in a range of sizes, formats and paper qualities. Typically landscape and portrait formats, they can be used as single or double page spreads, or using a proportion of page, or crossing over pages to *stitch* wide panoramas. The sketchbook is generally a handy size, transportable, protects work, and allows review of work whilst on site for self and with others. However, compared to reality where the

whole view is taken in as a pleasing composition, the fixed proportions of a sketchbook can limit or distort compositions.

The composition of an image should direct the eye by a similar route to that which it readily takes within the view. Identifying viewpoints, formatting views, establishing viewing heights, discerning the visual integrity of parts of the whole scene as views, and recognising the visual influence of compositional devices, all contribute to building a composition based on *the experience of looking.* For example, in wide, open landscapes, where any feature sits in isolation, the detail of the feature will command more attention. However, the experience of looking takes in the whole environment and the significance of space in the setting of the feature. Representation of the feature alone may be accurate to the obvious interest within a scene, but would not be a representative view. Nor would a view that shows the feature as being insignificant, as in measurable scale it might appear. The composition must include both the feature at a legible scale and detailed execution, and the expansiveness of the space around it. The composition brings the viewer closer or pulls them back from the subject, in much the same way as a zoom function on a camera. A study of a landscape can therefore immerse the viewer within the view, or allow them to look on in a more distant and objective way.

On encountering places different aspects can be arresting: visual qualities, emotive power, other interests, such as historic. The viewpoint can be a focus for wider landscape experience. The landscape artist or photographer will prospect for viewpoints across a landscape. Whilst some level of planning or foreknowledge is likely, the determining factor is predominantly in more immediate response to the surroundings. Other practitioners also experience the same process within more structured and programmatic approaches. The view arrives at points when the physical arrangement of features falls in to pleasing or otherwise significant composition. For example, receding lines lead

the eye in to and across space, enclosing landforms frame views, landmark summits and other visually prominent features draw the eye. Good viewpoints can be predicted through interpreting OS maps and routes planned to increase the opportunities, such as elevated paths, or routes crossing transitional points, watersheds, and valley edges. Intuitive responses underpin common perceptions of the landscape. Whether conscious or unconscious all people do readily respond to formal visual qualities that become apparent from certain points. As such intuitive and chance viewpoints are potential *indicators* of long held public perception that is built up through *insider knowledge* and familiarity. Small shifts of position can improve the scope or compositional aspects of the view, sometimes dramatically.

For some landscapes a single real / natural viewpoint can capture characteristics of the whole place, whilst, for others a sequence of changing views are needed to encapsulate the structured diversity and range, or inherently transitional qualities. Iconic viewpoints can express a range of landscape *significators;* they can be meaningful for their overview, grand outlook, sense of context, specific features or landmarks, or design intention and picturesque qualities. The visual experience of landscapes is a primary means of peoples' experience of and engagement with places. Understanding and finding means of representing these underpins a range of applications in landscape work. For example, in landscape character and visual impact assessment, representing the range of views is essential in attributing significance to potential impacts.

Enclosure, such as due to landform at the wider landscape scale, or more local, with topographic variation or woodland, will contain views within local areas. Views tend to be framed and focused. Enclosure creates intimate landscape character. Typically within valleys or woodland. Elevation and isolated high points, exposed edges, convex landforms and open expansive space creates

uninterrupted views over wider surroundings, as the eye level tends to remain relatively unobstructed. Views tend to panoramic. Exposure creates more wild landscape character, where the human scale feels diminished: typically upland. Anticipate the scale of views in planning, and find suitable ways to format the views when sketching. For framed views use the visual qualities of landform to organise the composition, with the sketch respecting the ordering inherent in a scene: the framing of valleys, the placing of summits. For wide panoramic views take best advantage of vertical occurrences to provide features, which frame and against which the horizontality can be read, and points of interest. Adjust the actual proportion to reflect and emphasise the human tendency to exaggerate verticals. Understanding the fundamental affect of enclosure and exposure on the scale of views helps to make judgements regarding the visual significance of a place, an area, or the visual impact of developments, as determined by the extent of intervisibility.

Working with the concept of an *eye level* does not necessitate a full grasp or use of perspective principles. It is useful in all sketching and freehand drawing, does not require formal constructions, and is a principle that quickly becomes embedded in tacit knowledge and used instinctively. The eye level tends to become an important compositional line. In patterned landscapes and townscapes, or where there are geometric features, the principles of perspective operate: parallel lines recede to *vanishing points*, which always locate on the *eye level*. The eye is therefore lead back through the image to focus on this *construction line*. In more natural landscapes the eye will still tend to be drawn back to distant horizon lines, which occupy or lie close to the eye level, or will focus on landmarks that are silhouetted along it.

Failure to appreciate the implication of an inappropriately placed eye level is one of the most common, yet least appreciated and easiest fixed mistakes in setting out a drawing. If the viewing position is elevated then much of the subject falls

below the *straight ahead* level of the eyes; the eye level should be set high up on a page. If the viewing position is low and much of the subject is above the level of the eyes, then the eye level should be placed low on a page. If there is interest both above and below, the eye level should be placed at an intermediate point, avoiding mid way. Where the eye level is placed within an image use the thirds principle or *Golden Section* as a guide. The mid point; halving an image in compositions is visually unpleasing.

The entirety of a view can be significant, even where it is only certain parts that draw the eye and are noticed consciously. Both landscape features and extents of less remarkable landscapes and space can be important. Selecting a fragment of a scene is difficult to successfully give the impression of the whole. Taking logical landscape units in to compositions allows the overall context and features to be readily explained within the scene. A successful selected view is not generally a *cookie cut* piece of a whole, but is an area with integrity in its own right.

Different compositional ideas / devices have specific visual effects that influence how we look at a scene. These should be reflected in the graphic depictions of sketches and visuals. For example, perspective constructions, such as *eye level* and *vanishing points* lead the eye across horizontal surfaces showing distance explicitly and aligning attention on distant horizon. This can be indicated graphically through the setting out of a drawing, and variations in line quality. Focal points occur as visual accents, silhouettes, and features with a strong identity, or *visual signature.* Features in open landscapes tend to stand out as landmarks, as do high points on horizon lines. Well-defined outline and selective rendering can be used to echo visual prominence. A dispersal of point features lead the eye across either unbounded surfaces, or through patterns of other elements. Typically settlement patterns, such as dispersed buildings in a landscape have this effect. They can be indicated with gestural marks to more

controlled point and outline. Strong shapes can be visually compelling, reading against backgrounds against which they are differentiated as a *'figure ground'* relationship. Shapes are *self composing* as features finding focus in *otherness.* Examples include villages in the landscape and discrete intakes and field enclosures. Graphically they can be depicted through outline or areas of colour or tone.

Developing and using field sketches

Principles for Developing and using field sketches are drawn together from the practice observations, broadly grouped around Landscape drawing, analysis and design, and Landscape representation.

Landscape drawing, analysis and design

Illustrated examples

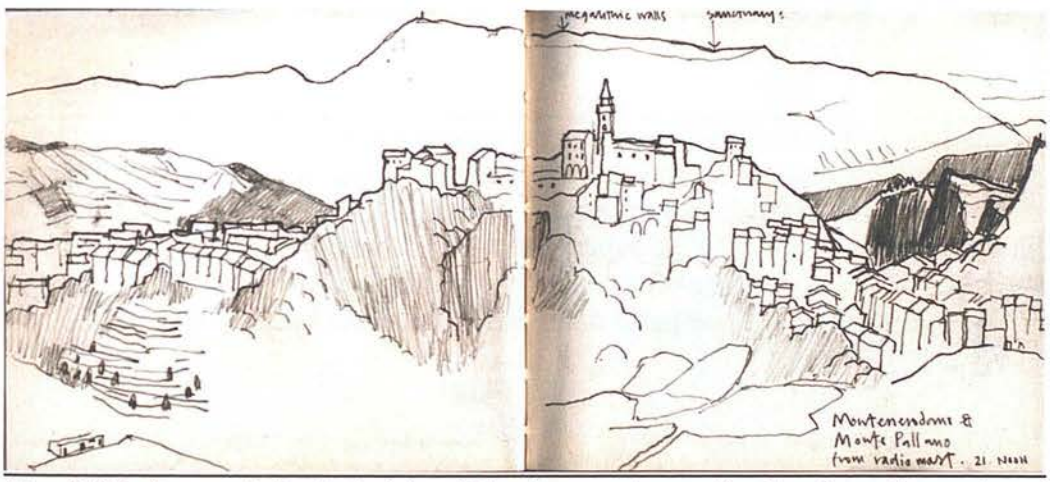


Fig. 6.20: An analytical sketch of Montenerodomo, finding form through pattern. The sketch explores and represents the topography through observation primarily of built form and roof pattern of the settlement. The form of buildings and the land are revealed and described in the pattern.

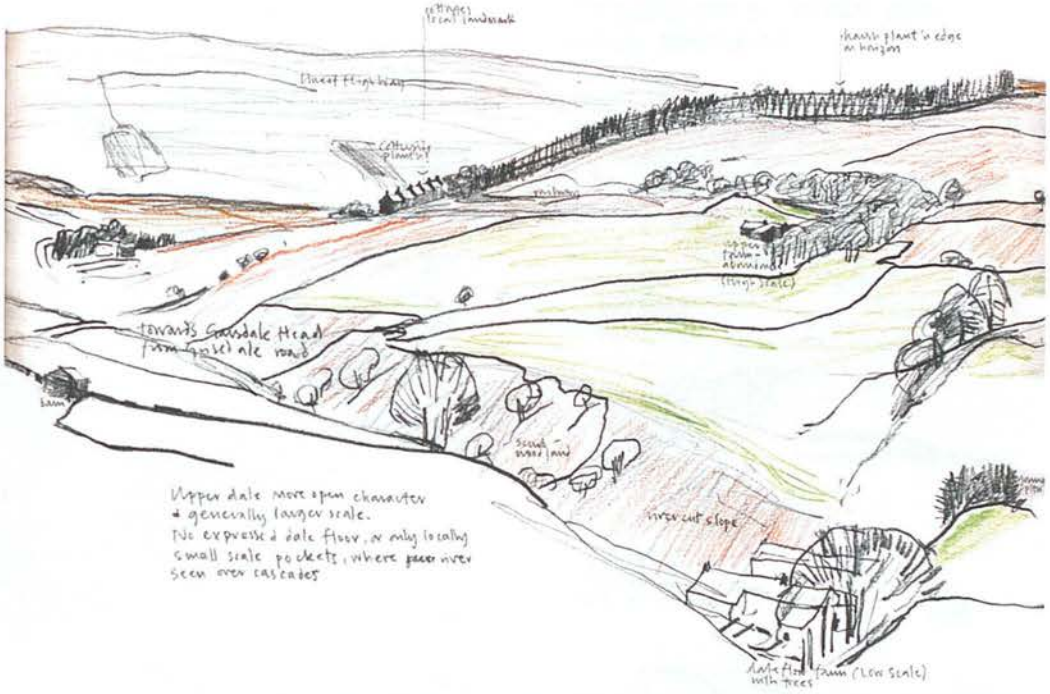


Fig. 6.21: Sketching and landscape assessment, selection and coding of features. In this landscape character sketch codified graphics are used in the line weight, rendering, and colour to represent the characteristics of landform, land cover, and built features. A comparative sketch, the drawing allowed time to recognise through *doing* the differences between the dale foot, main dale, and here, the dale head of Garsdale. See also Chapter 3, Case Study outlines.

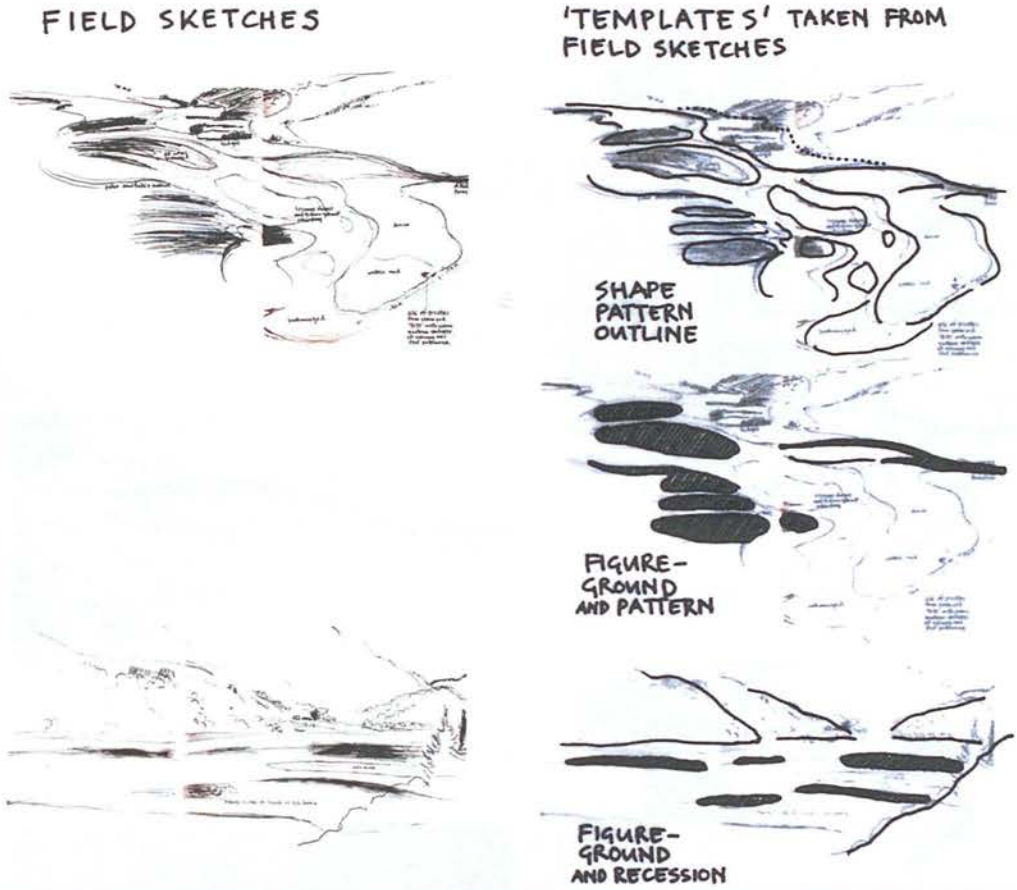
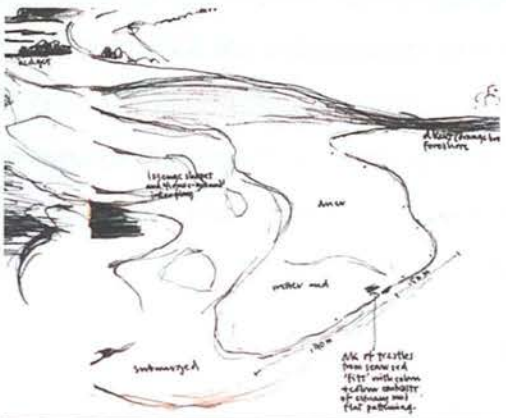


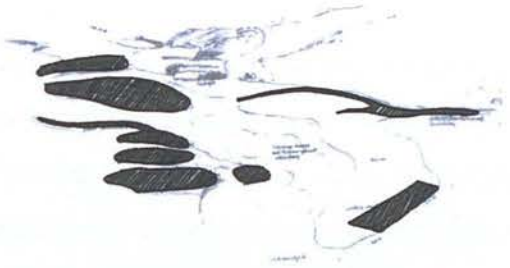
Fig. 6.22: The sketch as a *design tool*, a *template* for translating between form and pattern, Loch Ruel.

Two sketches were particularly influential in developing the design thinking at Loch Ruel: the above sketch of the flow forms which pattern the inter-tidal zone, and the lower showing the patches of dark seaweed visible against the muds. This diagram shows how these sketches were used to develop *templates* for the design, relating to pattern and *figure-ground* guiding principles. Design decisions are readily assimilated in the process of analytical sketching.

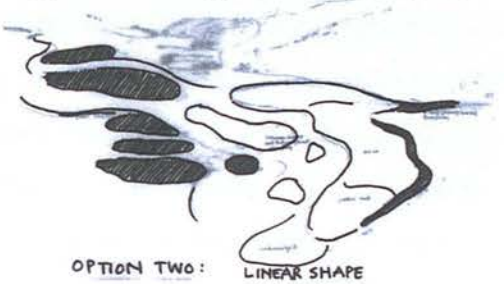
See following page:

Fig. 6.23: Achieving *landscape fit* was the design aim at Loch Ruel, which lies in a National Scenic Area. In order to integrate the oyster trestles in to the estuary different options were tested, using the key sketch as a background. The *ambiguity / inaccuracies* of the original sketch had a special role to play in generating alternatives, as the representation of the shapes and outlines had in itself been an exploration of the places abstract qualities that should underpin the form and scale of the development – as opposed to accurate representation. See photograph for comparison.

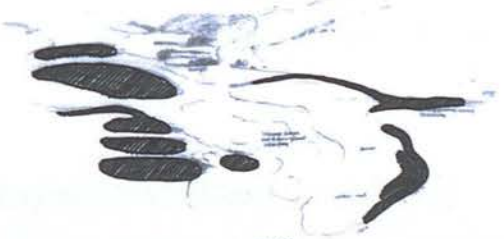




OPTION ONE: DISCORDANT FIGURE-GROUND



OPTION TWO: LINEAR SHAPE



OPTION THREE: SPLIT 'LOZENGE' SHAPE

OPTION FOUR: 'LOZENGE' SHAPE SITS IN TO DOMINANT FLOW FORM PATTERNS

OPTION FIVE: SMALL SCALE LINEAR SHAPES INTERUPT FLOW PATTERNS

Fig. 6.23: Achieving *landscape fit*, Loch Ruel

The sketch as an analytical technique / tool

Drawing a landscape focuses observation and stimulates analytical thinking. There is a shift in attention from being a casual observers, where we see the overall organising pattern, to engaging in analysis, where we observe the detail, the fragments that read as pattern, and their explicit relationships. The sketch further activates analytical thinking. By interpreting the existing scenario, specific design solutions and options, or potential landscape change can be considered and tested. Understanding the response to visual qualities is buried in *intuition,* but the movements of eye and hand through drawing articulate these. Codified and hierarchical graphics can be used to reflect the analytical stages of the drawing. The selective nature of drawing compares to a photograph, where the same value is applied to all visual information. Analytical sketching, and the reading of a codified sketch, therefore indicates significance in a landscape.

The activity of field sketching, the walking and the drawing, builds up an understanding of, and expresses, the building blocks of landscape character assessment: *landscape character types / units*, and the scale of landscape units. There is a parallel process: landscape character assessment disaggregates the landscape in to characteristics and features. Whilst the analysis of *doing* the sketch disaggregates the landscape to its parts, the sketch brings the whole landscape together as scene, with annotations pointing to the parts. A sketch builds up in the way that landscape character assessment strips down. As with anatomical study, the layers of structure are revealed through drawing, and their relationships, such as between topography and land use pattern, are made explicit. Drawings are constructed line against line as observations of features within layered depth, or spatial juxtaposition, are made. Drawing sequentially across local and wider landscape areas denotes changes in physical landscape character, and also charts the shifts of landscape experience supported by these. Drawing different landscapes demands new responses of drawing, both

in compositional and expressive mark making. A landscape drawing can deal primarily with space, and the arrangement of objects and features within space. In this case the sketch can become a spatial diagram that shows abstract rather than pictorial or representational aspects of form and pattern.

The sketch as a generator of landscape-rooted form and pattern

The sketch can directly interpret design theory. Sketching helps to root the abstract visual factors articulated in design theory, as responses to the more tangible features and aspects of actual places, their generalities (landscape character) and aspects of uniqueness (local distinctiveness). Topographical studies can imply / embed an interpretation of spatial structure that underpins landscape architectural theory, developed to express the experiential dimension of landscapes and townscapes.

Sketching allows you to *speak about* landscape *context* and *fit*. The visual relationships understood through drawing can inform design principles, and a *key sketch* that captures essential visual qualities can be a *template* against which design solutions can be developed and tested. This grounded and place-rooted approach to design is of particular relevance in protected landscapes, or other areas, where the intended conservation and enhancement of existing character, visual and scenic qualities through achieving *landscape fit* underpins the policies and management objectives. A sketch can articulate complex visual ideas and concepts, such as *landscape fit,* and *figure ground* in a simple visual statement. The sketch can therefore become a design tool, which assimilates the existing scenario with potential landscape change.

Sketching, the field sketch, and sketch visuals are important in generating design options, accessible to the designer and others. Sketching is an open and flexible process, open to continued involvement, and reviewing a sketch prompts recollections and imagination, generating possibilities for the designer, and

stimulating options and alternatives. The process injects resilience and ongoing flexibility to finalised design solutions. Sketch visuals require *imaginative engagement,* through the interpretation of information to construct a mental image of landscape change. This is more *involving* for the designer, the client, and other stakeholders, and draws people in to the decision making process, engaging them with the concrete output of the design process at an early / interim / evidently incomplete stage, where the scope to influence remains. This is particularly relevant in client relationships, collaborative working, and public participation. Practically, sketch visuals are a relatively quick, easy, and low resource way to test initial ideas with respect to visual implications and operational requirements.

Illustrated examples

Fig. 6.24: Constructing composite sketch visuals, Helvellyn and Cross Fell. Field sketches were quickly executed in harsh mountain locations, and converted to sketch visuals using supplementary site photos. A process of *construction* arose as perspectives, proportions, compositions, and details were tweaked to meet the communicative purposes at the various levels of refinement. The images were collated collage-style before being redrawn and / or photocopied as final rough work.


KINEE TEES
SHARK HOLES
SHARK HOLES
SHARK HOL

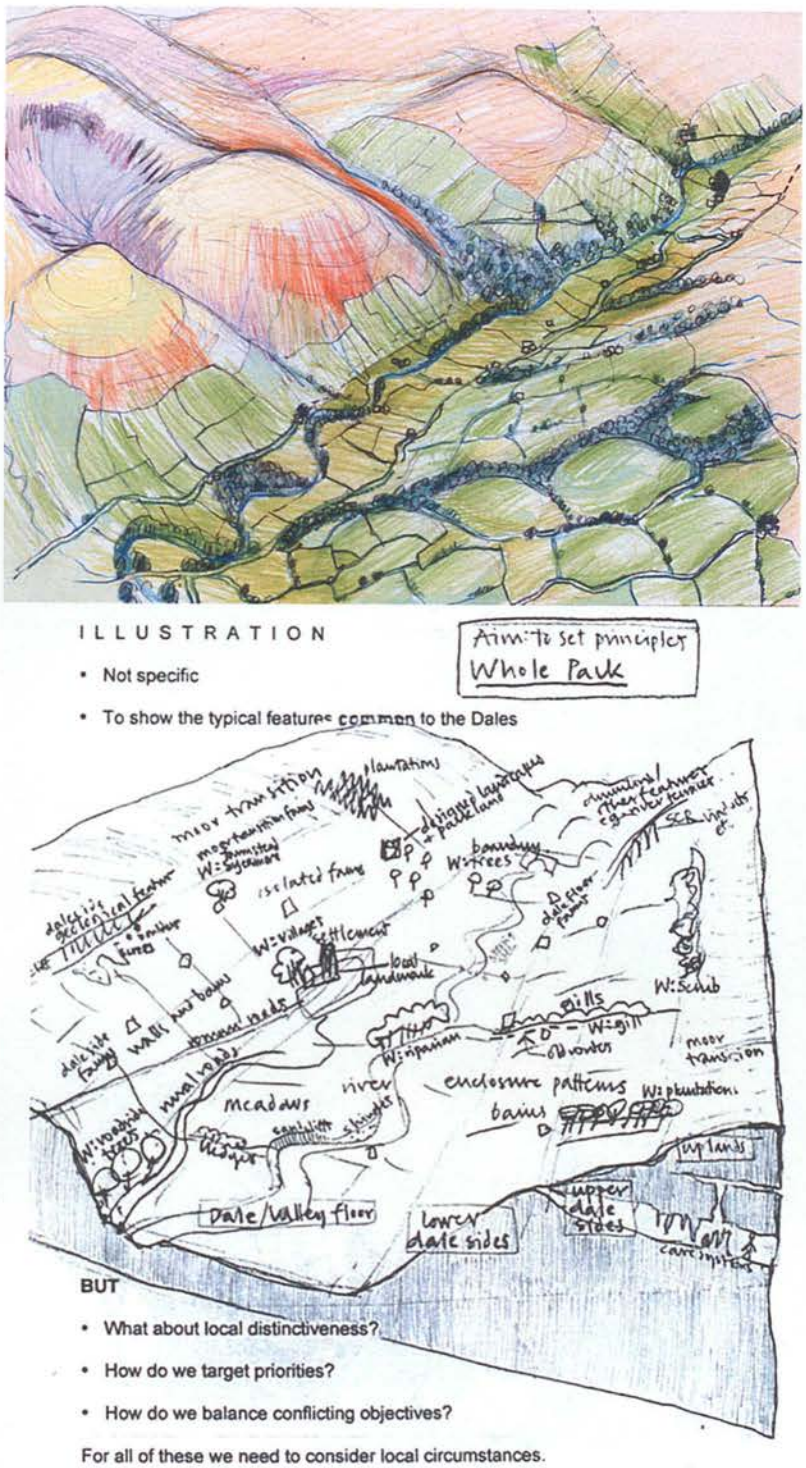


Fig. 6.26 Above, a *typical landscape* overview of a *landscape character type* and below, a more diagrammatic landscape model showing typical Dales features.

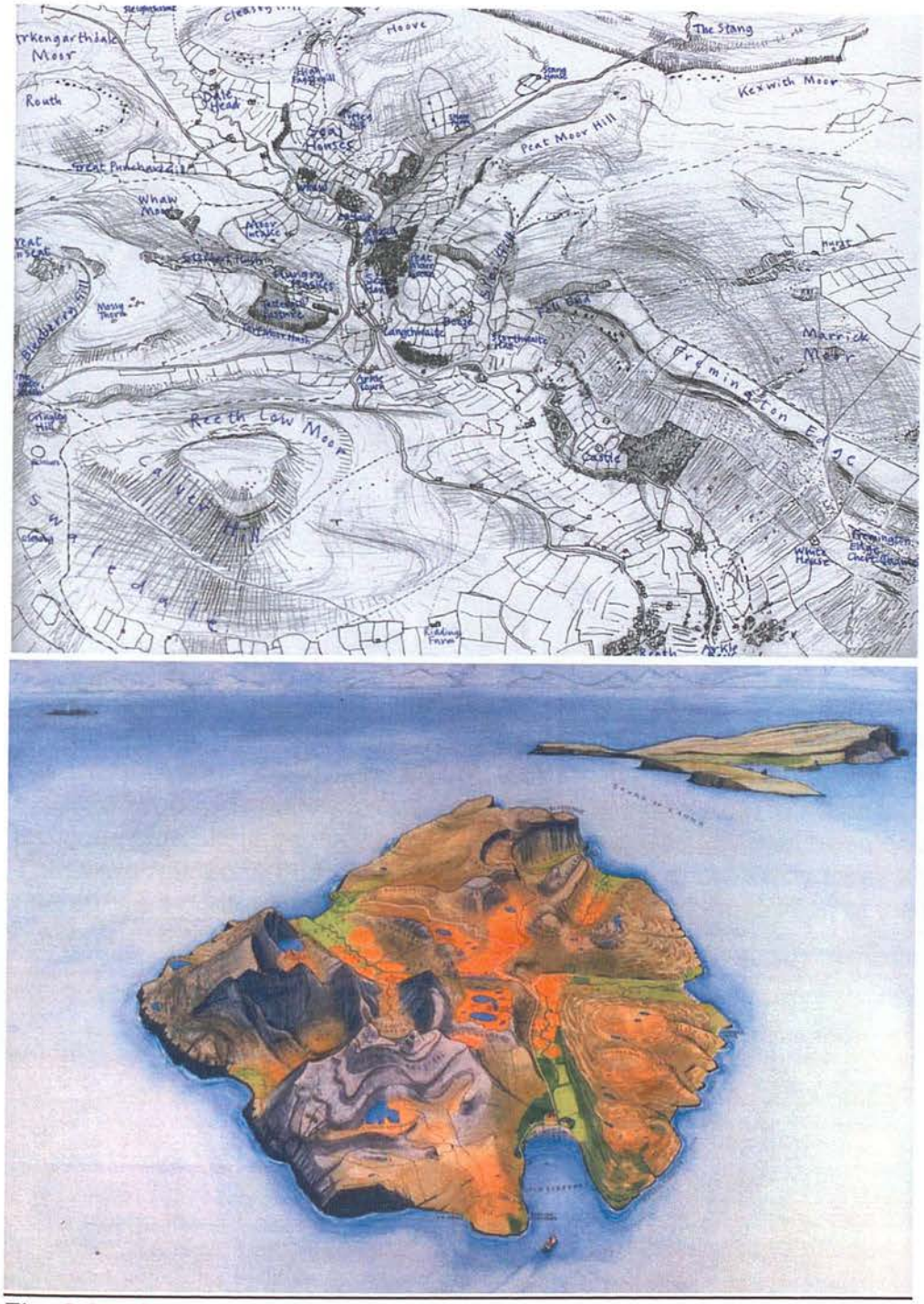


Fig. 6.27: Overview illustrations. Above, a sketch overview of Arkengarthdale. Below, a watercolour overview of the Island of Rum. Overviews that represent *whole landscapes:* both using codified graphics of line and colour to represent landscape character.

Fig. 6.28: Graphic design and layout, formats to make best use of visuals, Life in the Deadwood. The *Deadwood* publication was designed to make best use of the composite illustration of *typical forest landscapes* that had been developed. These were used in their individual parts to tell the *deadwood stories* and in entirety as a poster image. See Chapter 3, for further illustration of the whole poster.

Interpretation of landscapes

Landscape can be a difficult concept to work with. It involves multi-discipline information, complex systems and inter-relationships. It engages wide stakeholder groups who form quite different kinds of audiences. It is not easy to access in a purely abstract or academic context. Abstract data can require specialist skills to interpret and translate to understand spatial and visual consequence. Three-dimensional sketch visuals, field sketches, diagrams, sketch maps, are all graphic devices that interpret and represent spatial and visual landscape qualities in a direct and qualitative way that is relatively accessible. The field sketch can be presented as spatial and visual landscape data. Field sketching builds up, and field sketches contain, layers of information and analysis, both within an individual drawing in the use of hierarchies of lines and colours, and in the arrangement of main and subsidiary drawings (thumbnails), and hierarchies of annotations and labelling. Artistic research tends to be regarded as being qualitative and subjective, but the method behind field sketching lends legitimacy to this approach. Applying visual imagery to other areas of research can at best be inspiring and engaging, and at worst be less intimidating than academic and specialist jargon.

In using a visual language to express formal qualities, such as point, line, pattern, planes, tone, colour, texture, relationship, hierarchy, contrast, composition, the medium of an analytical sketch communicates universally appreciated visual qualities. The information in a sketch is ordered through the process of analysis and tends to be laid down and presented in hierarchical and / or graphically codified layers. A sketch can therefore communicate complexity, with some clarity of purpose. This contrasts with a freer artistic approach, characterised by spontaneity and expression, and greater importance of pictorial qualities. Allow the processes of analysis and construction of a sketch to remain visible. Do not overdraw or erase information to improve pictorial effect; retain the sketch as a *working drawing.* The enquiry and analysis remains explicit in a

sketch. This compares to a photograph, where it is not visible and can only be implied.

Much landscape visualisation practice focuses on achieving accurate, realistic representations. However, there is no *true view,* as the experience of looking is subjective, and everyone will look at and take something different away from a view. As such the aim of visuals may be to more or less simulate reality, but should engage the audience imaginatively, with the purpose of the visualisation. Expressive graphics that are emotive and engaging help this. An audit trail for visuals can set out the communicative intent and provide guidance on how they should be read. By providing more *realistic* information there is a danger that people will focus on *how it looks,* rather than *do we care,* or, *does it matter?* Reality can offer to abrupt a confrontation that blocks imaginative engagement, or a sense that there is scope to influence decisions.

The aim of a visualisation should be to be fit for specific communication purpose. This may entail accurate representation, but it may not. Communication can be more effective through focus and direction and visually this can be achieved through manipulation and adjustment of the image, or composition and arrangement of how the image is used with other information, written or visual. Consider adjustments to the composition, refinement of line work and tonal range, and inclusion or omission of details. Enlarge key elements to introduce pictorial and / or narrative focus. Include human elements to connect audiences with the human story and dimensions of scale. A rough visual can be manipulated, or constructed, from a range of site gathered field sketches, photographs, and additional information to *enhance the view*, or rather, make the communication intent more focused and specific.

A field sketch is a multi-layered image, which in itself is open to interpretation and has rich potential to manipulate as an *interpretive image*, making meanings

more and less explicit. Undertaking a sketch is an act of interpretation and reading a field sketch is also an act of interpretation. This interpretive aspect makes doing and reading a sketch open to more involvement by the sketcher and sketch-reader: engaging the imagination, and putting a different sort of responsibility on both parties. The sketch is an openly subjective interpretation that does not attempt to present *value-free* fact. This may complement alternative scientific or objective approaches to visual survey, or synergise with others that seek artistic forms of expression. Sketching is a way to tap in to common human responses and reactions to the physical arrangements of the landscape, and visual qualities these create. Field sketches are significant in terms of both their compositional content and the form of expression through mark making. Both these aspects can be manipulated to interpretive effect. A field sketch is accessible to more and less informed audiences, and can be read as a quick pictorial impression, or a source of more technical information. People look into images and also read them at surface. The decorative and factual qualities both register. The visual information of a sketch allows much detail to remain implicit in the image. As such an un-annotated sketch remains more open to interpretation. The use of annotations on a field sketch, made on site, or as part of processing site notes, draws attention to specific information and makes it explicit. Annotations on a field sketch focus communication. Compared to site photographs the sketch interprets openly, whilst the photograph represents everything, but only at a specific moment. As such site photographs are both non-selective and too narrow, and they still require interpretation and annotation to make the points explicit. A sketch is more authentic as the sketchiness suggests ambiguity, impermanence and temporality, which are fundamental to reading landscapes. A photograph is misleadingly categorical and suggests true representation of a permanent reality.

Visualisation

Final visualisation illustrations can be developed directly from field sketches and / or in stages: initial roughs, final roughs, line work, and full colour artwork. A rough sketch can reference either a real scenario or a previously presented visual. It can serve as a reminder, to test an idea, or to demonstrate a possible approach. Photocopies of field sketches can be used as the base to developing proposals and visuals, and add suprising *finish* and a formality to sketchy work. Tracing paper, acetate overlays, carbon paper, and working with different coloured pens and pencils, are all ways of transferring source imagery to inform early rough work. Such direct use of field sketches is low input of time, skill, or graphic and design resources, compared to more formal visualisation. As it stands a field sketch represents the *existing scenario* in the context of landscape change visualisations. Presenting change scenarios on field sketch bases integrates the assessment and design processes. This creates a transparency to the professional judgements and decisions of the design process, which can seem opaque and otherwise alienate audiences. Incorporating field sketches at initial stages of visualisation embeds a liveliness of drawing and expressive responsiveness to site.

Visualisation can and should reflect the stage of the design process through a transparency and honesty with regard to their style. Visuals can become more refined in line with finalisation of the design process. Sketchiness or ambiguity in the graphic style is appropriate to sketch design and consultative stages. Consider whether a formal finalised illustration stage is required; initial and rough visuals can suffice and be fit for purpose. Sketch visuals engage the imagination and stimulate participation in decision-making processes, compared to polished, formal, or finished visuals that can give the impression that decisions are taken; even that the project has been built. The implication being that there is little opportunity to influence decisions.

Representation and presentation techniques

Landscapes can be visualised to represent or suggest the whole landscape. Either specific natural viewpoints that capture a whole area, or constructed (usually) overviews of a wider territory. Three-dimensional visuals capture the qualitative aspects of wider landscapes. By setting a whole landscape area, wider contextual aspects can be shown, local distinctiveness and identity captured. Such visuals are good mediums for discussion and negotiation as they bring together the contexts of different parties in a *virtual world* at a scale and in a format that can be readily manipulated and used as a base to visualise potential changes. *Whole landscape* views are good tools for *visioning* and developing strategic visions for specific places.

Landscape can be used as an organising principle as it can be conceptualised and visualised spatially, and has inherent structures and hierarchies that lend themselves to categorisation. Diagrams are a means to such visualisation. Diagrams used by the researcher include: 3D *landscape-models*, those based on sketch maps, *cut-away landscapes, mind maps,* and *typical landscapes.* The latter are treated as a separately. *Cut-aways* are a slice of landscape, which implies both a sample taken, and that in reality the surfaces would extend beyond. They make the landscape in to a *studied object.* They are commonly used to show subterranean landscapes and reveal hidden internal dimensions, such as with geological cross sections. Diagrams are often made as thumbnail sketches, developed to resolve ideas quickly, or as part of discussions to test ideas, or as *graphic bridges* to share concepts. However, they can also be more elaborate, such as for analysis drawings or circulation plans. Arrows and boxes are often components to denote relationships between and groupings of elements. Sketchy and diagrammatic work helps to focus attention on schematic or spatial relations, rather than any specific reality, or representational details. Diagrams and drawings are complementary; resolving how abstract

structures manifest as real places, and how real places have distinctive spatial structures.

A typical landscape drawing is a diagrammatic graphic, which refers to common or general qualities across an area. It can be composed from a number of different referenced elements or impressions, re-arranged to optimise specific communication purposes. The interest lies in the parts and types of inter-relationships and arrangements; not specific contexts. This type of representation is fundamentally interpretive. If a real scenario, or implied *reality,* are required then aerial photography, either oblique views, or drapes over terrain models, would be more appropriate options. *Typical landscapes*, as natural and overviews, and three-dimensional schematics help bring landscape character to life by selecting common / generic qualities and presenting *landscape character types* (LCTs) as spatial phenomena with wider context, rather than as abstract checklists and / or maps.

Multiple perspectives, constructed and composite images, are representations of landscapes constructed from a number of source materials to: enhance natural views, develop *experiential view,* create apparently natural but non existent views, or represent typicality that does not exist as a single real place. The results can be rendered and presented to appear more or less natural, or obvious manipulations of reality. Minor adjustments to natural views can greatly improve the composition and impact of the visual qualities. These may involve small shifts of the eye level to gain specific visual access or shifts of perspective, or may involve a re-arrangement or introduction of foreground elements. Experiential views include the impressions gained on journeys and walks, where we synthesise an overall image that captures the experience, as if from a static viewpoint. Landscapes can be *unfolded* by encompassing a wider than natural visual cone (generally considered to be sixty degrees), such as can take in the spread of a panorama, or enter in to an enclosed space, which is flattened out

against a picture plane. Elaborate composite images can be collaged together from numerous diverse perspectives. Such tiling of visuals can be effective for poster graphics communicating complex messages. Within a strong overall pictorial and narrative structure the composite image retains a more or less plausible reality. The graphic freedom and opportunities of a composite image can allow convincing combinations of graphic devices that suggest different spatial qualities. Composite views extend the range of natural viewpoint representations, both spatially and in terms of selecting and condensing the scope of information or narratives a view supports. A composite image can encapsulate and extend the range of landscape scales by partially obeying rules of spatial recession and perspective, but also adjusting conventions to exaggerate foreground compared to backgrounds, or vice versa.

Overviews bring the landscape together in a holistic way, enabling the whole to be appreciated as a sum of its parts, and the relationship of the parts to be shown spatially. Examples include: natural elevated viewpoints, aerials, axonometric views, sketch overviews, and constructed perspectives. Landscape as an integrating concept can be encapsulated by overviews of actual or *typical landscapes.* Overviews are generally particularly effective at showing the pattern aspects of landscapes, such as woodland mosaics, field patterns and patterns of settlements and roofscapes. They also provide context for landscape scenarios and make the link between map information and eye level viewpoints. The dimensionality and spatial enclosure allows the viewer to enter a particular or generalised landscape scenario in their imagination. As such the imaginations participates in the descriptive act, making overviews powerful tools in public participation.

True axonometric views use the plan or map as the base and vertical information is projected up, allowing the spatial nature of places to become apparent. Vertical and sloping planes are seen and described: the nature of the

topography and vegetation cover depicted through rendering. The presence of landscape features allows landform to be read by implication. Larger and more detailed overviews require a more constructed and less sketchy approach. They demand a different kind of more authoritative knowledge and execution to appear convincing as a comprehensive visualisation. The imagination is alert to inaccuracies and less able to fill in gaps. Allow time and visual research from OS, aerials and fieldwork. Field sketches can be used to develop axonometric-type visuals from OS maps, by using them to extend the vertical dimension and qualities of spatial enclosure, in much the same way as architectural facades are projected up from the base plane. Natural eye level views can relatively easily be tipped in to axonometric type views if some basic spatial / plan information is available, such as OS map for large-scale, or simple site plan for small scale. After a site visit the latter can often be recalled in sufficient detail, even where no formal survey has been carried out.

The essential advantages of the hand drawn overview are the degrees of manipulation and adjustment of the spatial and visual aspects available in the setting out of construction lines, in contrast with photographic based techniques. Natural elevated views provide an actual / experienced overview perspective that allows an area of landscape to be viewed in *wholeness.* It can be easier for a viewer to relate to than full aerials or constructed birds eye views of a landscape. Aerials tend to flatten form and the vertical dimension more generally, but allow pattern to be seen strongly. Axonometric perspectives allow the viewer to look in to spaces and appreciate the spatial arrangement of elements, whilst retaining dimensional aspects of the enclosing surfaces, their forms, textures, and colour. They are relatively straightforward constructions introducing depth and form that can be applied across the landscape scales, even with limited information. Spatial models without recession through distance, axonometrics are a good option if the background is important to the purpose of visualisation. Constructed perspectives emphasise the foreground

features, and the distances will be diminished in importance. A good solution where the distant landscape is not important to the purpose of the visual. Sketch overviews allow a blend of axonometric and constructed perspective approaches, with the effects of recession suggested but reduced: implying a sense of an actual birds eye view, whilst having the benefit of retaining some information with distance.

Combining maps with natural views, as with architectural plans and elevations, disaggregates groups of information, but seen together communicates about spatial arrangements of elements and three-dimensional qualities. Using colour to link maps and views, connects key landscape characteristics and areas as both spatial distribution and qualitative and three-dimensional aspects. Maps and natural views combine both abstract data and qualitative representational techniques, which can reach wide audiences, and / or communicate broad and complex messages. Natural views show the visual and scenic consequences of decisions taken on a map. Maps show the spatial implications in terms of arrangement, inter-relationships, and measurable consequences, of elements and areas of the scenery. Iteration between maps and three-dimensional visuals helps to develop and express landscape and visual thinking.

Unlike buildings or parks the forms and patterns of rural landscapes are not so predictable or static, and evolve through time with a variety of influential factors. As such realistic representational images may be misleading. The aim of the visual could be to engage the imagination with the idea of a type of change, or options for change. A sketchier and more indicative visual remains open to interpretation and can be seen as *work in progress,* more notional and less fixed. Showing atmospheric effects are suggestive of and imply temporality in landscapes. Photomontage and virtual reality models can produce *too real* scenarios, which may be unlikely to be achievable, and may be ingenuous with

respect to the amount of known detail, and the impact on the visual experience of places.

Field sketching as a form of landscape representation combines an analytical landscape architectural approach, with a more responsive artistic one. This is useful in identifying and interpreting the persistent and ancient foundations of cultural landscapes. Through analysis persistent structures are defined and labelled, such as key topographic lines that make up the spatial structure. The latter responds to places as a resource that stimulates and support human emotions, of which we share an instinctive foundation with the ancients, albeit greatly modified through cultural context. Through analysis it is possible to make studies of persistent spatial and visual relationships between places, such as wider context, intervisibility and non-intervisibility, general visual exposure, landmark structures, orientations, spatial sequence, transition. However, taking time to experience and walk through the landscape as experienced by ancient people, particularly along any historic routes, and taking in ancient sites informs understanding and often leads to freer more emotionally charged work. Field sketching is part of wider investigative and imaginative processes, the walking and the drawing.

Annotations and labels are part of the graphic vocabulary of navigational devices to orientate the audience around images and documents, to aid communication. Annotations and labels on visuals can have several functions: to enliven communication, as compositional devices, in controlling communication messages and dealing with complexity. With regard to annotations on visuals, the first principle is that the annotations must balance with the pictorial qualities to enhance overall communication. An illustrated and annotated publication can *show* and *tell,* in a lively and conversational way, with engaging visuals and informal writing. Annotations can have both *conversational* or more technical style and content. Labelling and annotations

can be used to help the composition of images: visually framing, under-lining, providing focus, and drawing the eye around the image.

Communication can be more effective through focus and direction and visually this can be achieved through manipulation and adjustment of the image, or composition and arrangement of how the image is used with other information, written or visual.
For the former, see Principle: Effective visual communication.

Different types of imagery can be presented alongside one another to enhance the communicative potential. Using a variety of diagrams, maps, photographs, 3D, sketch, and finalised visuals provides different ways of communicating and bases of interpretation. These may cover a gamut of more abstract, symbolic, general, to more realistic and representational.

The stage of graphic design, format, and layout has a huge influence on how final illustrations appear, in terms of pictorial context, colour balance and dominance, resizing, stretching and compressing, cropping, text and labelling of images. Mixing different types of visuals and other information will reach a wider audience: different people have different preferences of communication styles. Composing different information extends the capabilities of communication to deal with broader messages or more complex information. Combining sketch visuals and diagrams, with photographs and photomontage is a way to bridge conceptual thinking with real impressions when considering landscape change.

Chapter 7 Support from theory and literature

Introduction

The literature review is presented as discursive text with many direct quotes interjected. These are valued as reflective observations or commentaries, by other practitioners and researchers, which are similar as a type of data, with the reflections of the researcher: presenting both *how to do* and *why important* explanations. They have been selected for their content, clarity of expression, and / or quality of language. Paraphrasing and interpretations are used where only an essential idea or gist is needed from the original.

Chapter 6, Refined and summarised practice principles, were developed around the framework of themes and properties, established through sorting tasks. The same six broad themes have been used to structure and present the literature review and, as set out in Chapter 2, these are broken down in to a series of properties that encompass the practice principles, but do not adhere exactly to them.

The following list the detailed content of this chapter.

Fieldwork:

- The significance of fieldwork
- Photographs and maps as proxy experience
- Lone working and collaborative fieldwork
- Viewpoints and views
- Familiarisation
- The specialness of walking
- Fragmented landscape experience

The experience and perception of landscape

- Introducing perception
- Art and literature: expressing the experience of landscape
- Perception and The Theory of Affordances
- Phenomenology and *embodied* experience
- Expression of an experiential perspective
- Drawing and *seeing well*
- The experience of weather and influence of temporal qualities on perception

Drawing as craft and expression:

- Early years development: learning and drawing
- The craft of drawing, and role of practice
- Materials and the techniques of mark making
- Expression of the experience of landscape character and visual qualities
- Movement and gesture, the quality of line

Field sketching:

- Sketching and the sketchbook
- Technical aspects of field notes and sketching for *non-artist/designers*

Landscape drawing, analysis and design

- *Reflection-on-action*
- Imaging and design: eidetic images
- The sketch and drawing as an analytical tool / technique
- Generating form and *landscape fit*

Landscape representation

- Visual communication
- Interpretation: a philosophical approach
- Landscape representation
- Alternative representations of landscape: *ways of seeing*

Fieldwork

The significance of fieldwork

There are considerable differences between disciplines, with regard to how significant fieldwork is. Within anthropology, for example, fieldwork remains fundamental to practice, and they distinguish between the practical engagements of ethnographic fieldwork and later descriptive accounts. For others, such as geographers, geologists, landscape architects, fieldwork remains an activity, but greatly supplemented, occasionally superseded by desk study of remotely gathered data. See Chapter 1 for further detail on the decline of fieldwork.

The need to go out in the field has been recognised by writers and artists. For example, Robert Macfarlane (2003, p.186) writes: *'To know a landscape properly, you must go in to it in person.'* There are distinct genres: environmental art and artists who work in *plein air,* as well as traditional topographic, and contemporary *place-related* literature, all of which pursue immersion in the outdoors.

A letter from Joan Eardley, 1958 expresses the compulsion of the experience and direct encounter with the elements; along with the practical difficulties of working outside:

> *'...in between blizzards it has been just so much what I wanted for my painting that stupidly I imagined I could just rush out and in with my canvas. You know what a job it was setting up that canvas at the back of the house. Well I've had it three or four times to do and undo in the teeth of a gale. I gave up I think after the third time, chiefly because the length of time I had to paint was so brief, mostly about a quarter of an hour before the onset of the next blizzard.'* (Kirkaldy Museum, 2006).

The English illustrations for the Shell Guides and the renowned poster images of 1940s Britain were developed based on site visits. Frank Newbould is quoted regarding the commissioning of a painting of Fort William:

> *'Commissioned by the influential Mr Teasdale of the London and North Eastern Railway Company, who insisted that artists visit the areas they were called upon to illustrate.'* (Collin and Bennett,1983)

Decision-making at planning committees and appeals do involve site visits and anecdotally are recognised as important, often as having been crucial in particular cases. The following documentation is unusual in that it sets an explicit example of how a Reporter came to her decision, and specifically demonstrates how her landscape judgements were informed through the direct visual experience of the place. It sets out the usefulness of the visualisation tools of the Environmental Statement, Landscape and Visual Impact Assessment, compared to the role of site visits:

> *'The many photomontages, wire frames, transparencies and Zones of theoretical visibility maps, some of which were the subject of criticism by opposing parties, are useful tools but they cannot replace the human eye and personal judgement. My site visits were therefore of crucial importance.'* (Mackenzie, 2009, p.5, s.26)

Ruth MacKenzie goes on to set out that as *'As a result of my site visits ….'* (s.27), she reached a view on the landscape impact based on a detailed independent assessment of different viewpoints. Her report continues to demonstrate her confidence in landscape judgements based on both reference to various landscape planning documents, but also an understanding of the visual qualities gained from her own first-hand experience of the place:

> *'To my mind, despite being easily accessible, Stanton Moor still retains a sense of wildness and remoteness. … …it is the largely undisturbed skyline that, in my opinion, draws the eye and gives Stanton Moor its expansive and remote character.'* (s.31)

Chris Tilley, (2004, p.219) whose archaeological fieldwork at Leskernick is case-studied extensively (Bender, Hamilton, Tilley, 2007), sets out the difference between *'first order'* and *'second order'* knowledge, *'the basic dilemma of all research'*:

> *Ancient stones in the landscape .... cannot be known or understood simply from publications, from maps, diagrams, photographs and descriptions, because these are only representations. As representations they fail in conveying a bodily understanding of prehistoric remains. ... There can be no substitute for the human experience of place – of being there – and it is only after this that the various technologies of representation come into play.'* (Tilley, 2004, p.218)

Photographs and maps as proxy experience

Within LVIAs and in public perception research, photographs are used as a proxy for experience. With the former, site visits are recommended in associated guidance (The Landscape Institute and IEMA, 2002). However, much weight and controversy falls on the photographic image, against which judgements are made to appear to hinge: even as demonstrated above, whilst, the site visit is found to be the crucial reference – and for which there is no explicit guidance. Guidance tends to be most readily delivered that deals with the technical aspects of image making, rather than the more interpretive aspects of judging the significance of landscape impacts and their acceptability. Site visits elicit both impulsive and instinctive responses and opportunities to look more carefully and discuss: processes harder to map and specify, but important none-the-less.

Harry Heft considers how we perceive, in addressing the problem of the use of photographs as a proxy for landscape experience. He refers to the work of

Susan Sontag and differentiates between *'"the spectator stance" and the engaged, active perceiver stance'* (Heft, 2010, p.27) as two different modes of perceptual experience when viewing photographs compared to viewing first-hand, which engender different feelings.

> *'...[P]hotographic images tend to subtract feeling from something we experience first hand and the feelings they do arouse are, largely, not those we have in real life.'* (Sontag, 1977, quoted in Heft, 2010, p.28)

The Natural England publication, Experiencing Landscapes, (LUC and Research Box, 2009) is based on qualitative social research, which aims to look at the correlation between landscape character and landscape experience. The research method used a selection of photographs to stimulate responses, testing which landscape types and specific features, supported *cultural services* such as, spirituality, a sense of history, inspiration, escapism. Within a section on potential lessons, the researchers acknowledge the issue of *passive versus active experience* of the landscape and discuss some of the options they investigated, such as *'walking the land'* and *'view from the path mapping'*, but fall short of recognising that fieldwork-based research could be made to be sufficiently rigorous. They do introduce the question of memory:

> *'... we should remember that all qualitative research entails drawing on people's memories – and there is no suggestion in the literature that these memories are not themselves representing "active" experience.'* (LUC and Research Box, 2009, Annex 1, p.13)

The landscape architect James Corner notes the immediacy of photographs and limits to capturing durational experiences, such as being in a landscape:

> *'...photography served as a primary means of recording our travels. Of course, in contrast to the motion of the traveller, the static nature of the photograph is unable to convey the temporal experiences of passage, the emerging and withdrawing of phenomena, and the strange way events unfold. There is also a certain immediacy to the experience of a*

> *photograph, unlike the durational experience of narrative prose, movies, or soundtracks, for which sequential timing is essential.'* (Corner and MacLean, 1996, p.xv)

On setting out to undertake the project, Taking Measures Across the American Landscape, Corner and MacLean valued *happenstance* as an important part of the process of the project, as well as a humorous and poetic connection between their own enterprise and that of the American culture within the landscape:

> *'Although both of us relied heavily upon guidebooks, maps, and cameras, a series of chance encounters with people and land provided a greater sense of orientation. ... The sudden effects of chance, error, and luck, dashing wildly across every rational scheme and purpose, were later to affect our appreciation of the various ways the American landscape had been forged.'* (Corner and MacLean, 1996, p.xv.)

Corner considers the role of the map; flat and coded documents not resembling the land, and requiring training to interpret. However, he notes that*'...spatial and topographic awareness of a landscape would be likely to be limited and ambiguous without the prior knowledge of a map.* (p.18)

At Leskernick, they worked from the RCHME map, which shows built features, but no contours. Barbara Bender comments:

> *'The map both orientates and disorientates. What it does not show are the contours of the land. And without them the terrain is curiously flattened: there is no way of orientating oneself in terms of slopes or hollows, uphill or downhill. The contour-less map nullifies topography .....'* (Bender, Hamilton and Tilley, 2007, p.58)

Lone working and collaborative fieldwork

The Australian artist and journal keeper John Wolseley (Quoted in Grishin, n.d.) writes of the need to be overcome by landscape and *'to enter into a private*

collaborative encounter with it'. The journal appears to afford him this intimate *'immersion in nature'*, He writes of the importance of being alone, and the *'five-day blues'* of boredom before he can achieve that state:

> *'There comes a state of being that I usually reach after solitary periods, whose quality possibly provides the main reason why I do this "camping alone" business. ..... in solitariness it is the external world of rocks, trees and birds that provides the texture of reference. It's probable that the mind needs some kind of dialogue with something external. What I find is that after about a week alone I realise that I haven't thought of anything much-say for several hours-but that my consciousness has been 'out there' with a succession of textural, visual and aural involvements; ..... It is a state of reverie. And after days of it there comes a time when all the elements of a place like this .....seem to take me over.'* (Wolseley, quoted in Grishin, n.d.)

Another insight Grishin notes is the similarity of procedures Wolesley shares with nature-artists. It seems that just as observational drawing historically originated the keeping of sketchbooks and journals, so sketchbooks bring us back to nature in a spirit of encounter and discovery:

> *'Also in his journal he records with almost military precision his preparations for the campaign: the purchase of provisions, arrangements for shelter, the hours spent each day working, random botanical and zoological observations. The journal is like a field notebook of a passionate amateur natural scientist....'* (Grishin, n.d.)

Sara Maitland makes a study of silence, the practice of solitude, and the history of such, to better understand their values:

> *'Gilbert White, a clergyman and significant naturalist, in Selbourne, Hampshire and Thomas Bewick, the wood engraver .... were both fully aware that their habit of solitary walking in the countryside was key to their powers of observation and their emotional response to what they saw. Henry Thoreau made the connection explicitly early on, writing that it was practically impossible to love both company and nature.'* (Maitland, 2008, p.155)

The Quiet Conference[1] brought together the unusual mix of politicians, policy makers, clergy and conservationists to consider issues around noise and the wider benefits of silence to our wellbeing. The Right Reverend Christopher Jamison, the Abbott of Worth, recognised the value of tranquillity and silence for the wellbeing of spirituality, as a lived experience, and as ancient tradition. Human beings have a *contemplative urge* and that if this can't be expressed it leads to being spiritually unwell, which in turn can lead to being emotionally unwell.

Many artists have sought solitude and encounters with nature and *foreign* landscapes through *tours,* long walks, or journeys: Bewick, Turner, Lear, Wolseley. These appear to create a receptive state and route to feeling tranquil, or *contemplative,* and can nurture a state of wellbeing as activities in themselves. Travel also provides *comfortable ways* to be alone and silent, whilst occupied looking at the world.

Donald Schön proposes re-defined roles between researchers and practitioners, recognising the benefits of collaboration around fieldwork. The practitioner would not merely be the user of the researchers' products, but *'He reveals to the reflective researcher the ways of thinking that he brings to his practice, and draws on reflective research as an aid to his own reflection-in-action.'* The researcher would '*gain an inside view of the experience of practice*'. (Schön, 2002, p.323-324) This would be a reciprocal collaboration, which would involve activities such as fieldwork, consultation, and continuing education, as core research activities, rather than peripheral. Tim Ingold links the gesture of writing with the *'trajectories of the hand that made them',* identifying the link between drawing and pointing. (Ingold, 2007a, p.26) Thus, a sketchbook is potentially

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[1] CPRE, The Quiet Garden Movement, and The Noise Association (29 April 2008) **The Quiet Conference,** Lambeth Palace: providing context for the 2008 Government Strategy on Noise.

useful in setting up the *'drawing talking language'* of Schön's *reflective practice:* (2007, p.270).

The published account of the Leskernick project sets the project out as being:

> *'....primarily about prehistoric landscapes, but also about contemporary ones. It is a project that involves both archaeologists and anthropologists. It also involves sociological projects, art projects, an exhibition, and a website. It attempts to question and work across disciplinary boundaries.'* (Bender, Hamilton and Tilley, 2007, p.16)

The dialogue between different specialists instigates novel interpretations of the significance of physical features of the site and its surroundings: such as in interpreting the boulder spreads, *clitter,* discussions between the archaeologists and geomorphologists helped them to see respective cultural and natural orderings to the apparent visual chaos. (p.206-229) It is unlikely the observations could have been made from consideration by the other party of an archaeological or geological report *'back at the office'*: the understanding arose through recognising the subtleties and nuances on site, which are part of the skill of a specialist, the full details of which don't get written up, and are part of the practitioner's repertoire of *tacit knowledge.* (Schön, 2002) Also, looking with someone else changes how you observe, making interpretations more complicated, but more meaningful. Dialogue between Chris Tilley and Stephan Harrison:

> *'Chris: So do you think that recognition of that modification alters the way you as geologists would think about these rocks and think about the hill?*
> *...*
> *Stephan: It completely changes my perception of all clitter fields now. .....it questions our interpretations.'* (Bender, Hamilton, Tilley, 2207, p.227)

The Leskernick Project provides an example of long-term collaborative fieldwork. Rifts appeared within disciplines, rather than between them, with the

archaeological fieldwork component of site survey and excavation, were noted as being in *'two camps'* in one of the participants' diary entries. Although collaboration did continue without *'overt conflict'* away from the field, the Project became strained with regard to fieldwork. Mike Wilmore (anthropologist) reports:

> *'.....issues about money and resources got tangled up with more theoretical questions about procedures and aims, and the original desire of the project directors to collaborate as closely as possible during fieldwork was tacitly abandoned by the end of the third year.'* (Bender, Hamilton, Tilley, 2207, p.248)

Fieldwork, particularly over more prolonged periods tends to heighten emotional engagement, and moods more generally, perhaps in part due to time away from normal life and circumstances, and obligations, creating with groups a sort of *society-apart.* Through the Leskernick diaries and involvement of anthropologists, both participant *reflective* observations and external objective commentary, provided a record of the dynamics of collaboration.

Viewpoints and views

Landscape aesthetics have been greatly influenced by the Picturesque Movement, and the orientation of fieldwork continues to be around the selection of viewpoints, with the potential for pictorial composition. Reverend William Gilpin was a founder of the *Picturesque* aesthetic: *'"That kind of beauty which is agreeable in a picture."'* (Abbott Hall, 2008b) During the 1760s he wrote essays and guide books showing, *'how the principles of Picturesque Scenery'* could be applied to different landscapes. Fundamental to Gilpin's ideas was the identification of viewpoints from which the landscape would appear most Picturesque. Father Thomas West's, Guide to the Lakes, published in 1778, formalised this thinking with his approach by designating *Stations* from which visitors could enjoy the best views and appreciate the formal visual qualities and *Picturesque aesthetic values.*

> *'The very title "guide" suggests that it was conceived for use in the field, and its main purpose was to direct its users to the outstanding vantage points from which they might enjoy the landscape as scenery. He directs the eye from object to object in the scene, giving the names of mountains and islands, and drawing attention to any particular forms or features in the view.'* (Hill, 1996, p.7)

The Lake District was an important landscape for the development of picturesque aesthetics and traditions of sketching and watercolours. It inspired the Picturesque sensibility and formalised thinking, attracting artists of the eighteenth to mid nineteenth centuries, such as Thomas Hearne, J. R. Cozens, Constable and Edward Lear, to work there. Lear went on extended sketching tours, including his 1836 tour of the Lake District. By this time there were a number of guide books to which he was likely to have referred and used to plan his tours. (Nugent, 2009, p.78) He captured the *classic views,* but travelling by foot and horseback he covered much ground and made between 130 and 140 sketches over nearly two months: finding incidental inspiration along the way, climbing on occasions high above the regular by-ways. (p.118)

David Hill notes scenic experience and description as being one of the last "themes" of eighteenth century travel to develop (Hill, 1996, p.5): other themes including geology and natural curiosities, manufacture and agriculture, and history and antiquities. However by the end of the eighteenth century it was the most dominant and awareness of scenery and its experience was very much grounded in travel. The *'great scenographic texts',* (p.7) such as by West and Gilpin, were the origin of the concept of scenery: and it was experienced most formally through static viewpoints.

Viewpoints and views arise from the spatial structure and character of landscapes, and access patterns in relation to that. The deep lake filled valleys of the Lakes provide aspects of framing, and focal points, as well as the

potential for elevated viewpoints to appreciate these at their most '*Picturesque*'. The preserve of artist's appreciation opened up to the public. The Romantic Movement and early tourists exploring the Lake District, with Claude Glasses and the scenic Ullswater steamers, were a response to the Picturesque Movement: the recognition of views and viewpoints entered the popular cultural psyche and still underpins the public perception of *typical Lakes Scenery* today.

An exhibition[2] of nine Lake District views, depicted by 100 artists over a time span of 250 years, shows how the landscape evolved.

> *'There are a mere ten generations which divide us from the first painting and we see not only a change in the Lake District itself, but in the way artists thought about it and understood it.'* (Bragg in Abbott Hall, 1980)

John Butler-Adams plots the changing values that people have placed on the views of the Lake District, since the areas emergence as a *'coherent recognisable place'* in the early eighteenth century: from *Wilderness,* to *Middlelandscape,* to *Garden.* (Butler-Adam in Abbott Hall, 1980, p.5) It is the views of the Lake District, which became framed by the *Picturesque* that have helped to define the area as a *place, t*hrough offering consistent arrangements of characteristics and qualities, to which people continue to relate.

Robert MacFarlane sets out the rewards of a hill top view, the expansive and mind-expanding panorama:

> *'And of course it was upon a summit, in solitude that the Romantic fondness for meditation could be both indulged and encouraged. ....The mountain-top and the viewpoint became the accepted sites of contemplation and creativity: places where you were brought to see further both physically and metaphysically. ....all visitors to altitude were drawn in part by the conviction that they would be rewarded with far sight*

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[2] **The View Finders Exhibition**, 31 May – 27 July 1980, Abbott Hall Art Gallery, Kendal

and insight: that mindscapes as well as landscapes would be revealed to them.' (Macfarlane, 2003, p.160)

Recent Natural England research on landscape perception identifies elevated and hilltop views, or views of peaks, as significant aspects of positive landscape experience:

> *'The importance of height was frequently talked about as being integral to many important landscape experiences, especially the more exhilarating and rewarding moments of "feeling on top of the world". Openness was valued as an integral part of such an experience. Even the mainstream, whilst not so involved in climbing mountains, got benefit from seeing peaks from a distance – it gave them a sense of perspective.' (LUC and Research* Box for Natural England, 2009, p.43)

The view as a framework for measurement and evaluation persists in contemporary landscape thinking and practice, as a readily graspable and tangible key concept. Classic, iconic, and designated Ordnance Survey viewpoints are popular destinations and the focus of visits to the countryside. The planned viewpoints of LVIA scoping exercises form the basis of judging appropriate landscape change. (Landscape Institute and IEMA, 2002)

Viewpoints and movement are intrinsically connected: some views are appreciated as sequences of unfolding views, and others appear from a fixed point. The approach to landscape features is very much bound up with how we see and experience them. Mike Pitt considers historic drawings, paintings and photographs of Stonehenge to consider how visitor's perceptions have changed according to the approach to the stones, with the formalisation of routes. (Pitt, 2008, p.1) The change of the orientation of viewpoint, Pitt maintains, *'has strongly influenced modern Stonehenge iconography',* from former *'inclusive'* southern views, to today's more *'exclusive'* views from the north.

> *'I propose that the physical journey that people take to view the stones, and their visualisation of the monument that feeds into both their understanding and valuation of it, are intimately connected ….. the journey makes the monument.'* (Pitt, 2008, p.3-4)

Pitt quotes Gilpin as regarding the setting and approach to the stones: *'in the same style of greatness as Stonehenge itself'*. Turner and Constables' views of Stonehenge in the early nineteenth century were from the east, reputedly deplored by local guides, but taken as the most pragmatic approach from the then new turnpike road. (p.20) Access patterns as much as visual qualities determine the public perception of views.

Whilst the static view, as developed through the Picturesque has readily been incorporated into professional approaches to landscape descriptions and assessments, the *unfolding view*, or the effects of dynamics of visual experience is as yet less well integrated into landscape practice. The influence of movement on visual perception is explored in more detail later through the interpretations of Gibson's Theory of Affordances. (Gibson, 1979)

Familiarisation

Recent research on landscape experience, recognised familiarity as one of a series of factors that influenced people's experience and perception of landscapes:

> *'The research also found some differences in the way people experience the landscape according to demographic factors…., situational factors…., their awareness or familiarity with the landscape, and their personal preferences….'* (LUC and Research Box for Natural England, 2009, p.5)

Our first and instinctive *limbic* readings of a place are important. Design solutions can present themselves, ready resolved, and any amount of planning and interpretation of remote data can be undermined with the initial, "I see":

> *'No amount of looking will ever exhaust that which can be taken in at a glance.'*(Clark, 2000, p.32)

Aristotle's three ways of knowing; the third is the wisdom of *'knowing in a moment'.* John Ruskin recognised benefits and dangers for observation at all stages of getting to know somewhere:

> *'Generally speaking I find that when we first look at a subject we get a glimpse of some great truths about it; as we look longer, our vanity, our false reasoning, and half-knowledge, lead us into various wrong opinions; but as we look longer still, we gradually return to our first impressions, only with a full understanding of their mystical and innermost reasons .....'* (Ruskin, 1843, quoted in Arts Council, 1983)

Familiarity influenced the intense detail and sense of place of the carved images of Thomas Bewick, the Eighteenth Century wood engraver. He walked between his childhood home of Cherryburn and Newcastle, where he was apprenticed and later worked.

> *'As he walked he felt the changing year course through his blood. The regular rhythm of seeing the same scenes forwards and backwards, over and over, gave them a clarity that was almost surreal: "observing the weekly changes of the long lengthened and varied year, which by being so measured out, appeared like living double ones time."'* (Uglow, 2006, p.134-135)

Tim Ingold's *observational path* of '*being with',* (Ingold, 2007a) as set out in relation to anthropology, is a useful idea that could refer to the duration of a sketch, or a period of prolonged work within an area. As with anthropology and ethnological studies, where a period of fieldwork (usually a year) is undertaken, time spent with a landscape has benefits of familiarity, a shifting focus with respect to both the line of enquiry and visual qualities, and *'information arrives in stages'.* (Ingold, 2007c) It also allows temporal qualities of landscapes, such as seasonality, weather and changing light, to be explored.

In Richard Bradley's publication of his excavation of Clava Cairns, in the section, Taking time to become acquainted, he reflects on the significance of familiarity, and of adhoc discussions beyond the formal site processes in making observations:

> *'It was not until the third year of the project .....that many of the observations were made for the first time. They resulted from an increased familiarity with the architecture of the different monuments and especially from repeated discussions between people participating in the project. As often as not, these arose through chance observations under different lighting conditions. Indeed it was not until we felt that we were becoming familiar with the site structures that many of the more striking anomalies were recognised for the first time .....Perhaps we had more self confidence because we were no longer constrained by the rigours of excavation.'* (Bradley, 2000, p.214)

James Corner sets out the processes of change through familiarization, as a sort of *'contemplative survey':*

> *'As our travels proceeded we found ourselves increasingly drawn not only to the visual beauty of the land but also to the puzzle of its evolution and making.'* (Corner in Corner, Maclean, 1996, p.xvi)

Chris Tilley recognises the significance of taking time and becoming familiar with places. As anthropologist and through archaeological projects the notion of fieldwork and sequential seasons of involvement is the norm:

> *'Understanding place is a gradual process pf familiarisation in which description is ultimately the last act. Sensing, perceiving and understanding are conjoined in a fundamental way. Understanding and experiencing a place is a process of learning how to feel. It involves a .... equivalent of getting to know a person, in which first impressions can, as often as not, be misleading. It takes time and cannot be hurried.'* (Tilley, 2004, p.223)

Diary keeping was built in at the outset with the Leskernick project. This provides valuable insights in to how the project participants' experiences changed from first encounters of the first season to in depth familiarisation and attunement after five years. Barbara Bender's dairy: first entry on her first visit to Leskernick Hill: *'A strong sense of not "seeing" much'.* (Bender, Hamilton, Tilley, 2007, p.19) And, familiarisation as a holistic process of body, and mind: *'slowly we began to work our way into the site, physically, intellectually, and emotionally.'* (p.22) There appears a parallel between fieldwork and inhabiting: the activity of the task accelerating the life process of getting to know a place. Contrast the following:

> *'We were "outsiders" coming in to an unfamiliar place.'* (p.28)
>
> *'We as archaeologists and anthropologists are betwixt and between: we behold from distance and yet, through returning to the same place again and again, we begin to feel an intimacy.'* (p.38)

This sentiment must be common to many field workers in landscapes: it becomes *your own* and gathering local knowledge can be accelerated through the intensity of undertaking specialist tasks. The value of the time spent in gaining insights through engaging with a place, practically, emotionally and imaginatively. Drawing had a role in setting out a temporal framework. At Leskernick they realised some of the houses had been converted into cairns:

> *'The time taken in looking, drawing, and discussing the houses was central to the investigative and interpretative process. We began to get a feel for the houses and to see in ways that were quite different from our initial encounters.'* (p.57)

Methods evolve to resolve emerging problems. When fieldwork extends over long periods and involves many and seasonally changing staff, maintaining consistency becomes a key concern and systems were developed to counteract

this. Acquiring and building of practice based *doing* skills and tacit knowledge requires time and practice:

> *The process of excavation, particularly in difficult physical circumstances and distinctive conditions, nurtures a corporate group defined by its common purpose, skills, and knowledge. This is secured by knowing how to excavate a particular environment, an eye for "things" such as layers that cannot be seen by the uninitiated, and knowledge of what to expect, such as the basic sequences below a surface. Such wisdom accretes. .....this type of learnt knowledge, garnered through practice and experience, is similar to that acquired by apprenticed and skilled persons involved in manual craft ...'* (Hamilton in Bender, Hamilton, Tilley, 2007, p.71)

However, becoming tired, over-familiarity *breeds contempt,* as shown by this diary entry from a Leskerick participant, 1996:

> *'...words like "significant", "cairn", "interesting", and "stone" have become very stale. The words no longer express the enthusiasm of a week ago. Instead they are said flatly, something to be noted down on a form.'* (Bender, Hamilton, Tilley, 2007, p.65)

The Leskernick observations can be useful in setting out a temporal framework, structured around observation, but with potential for a more holistic engagement. The time allowed for insights, closer observations, putting apparently unrelated information together, recognising patterns and commonality, and seeing differences. Time taken to attune to unfamiliar aesthetics revealed visually obscure patterns and connections.

The *specialness* of walking

Walking is an activity that brings people into a special contact with nature, both in terms of reaching less accessible locations in the outer landscape, and correspondingly, altered states of being through its pace and rhythms. In the

Editorial, Walking and flowing, the act of walking is presented (alongside quantum mechanics) as a means to *'active observation'*:

> *'As we move through any given landscape we are both a viewer of and a participant in the scene….. where we lie on the spectrum is determined by how fast we move and how far we travel.*
> *At walking speed, we connect intimately with our immediate environs and, like flowing water – the path of which is determined by, yet shapes, the land – we fix the landscape in a personal, singular state.'* (Landscape, 2007, p.1)

Jenny Uglow (2006) vividly describes the landscapes of Northumbria and city of Newcastle: places Thomas Bewick experienced on foot and celebrated in miniature in his art: *'Walking was Bewick's great escape, his own way of absorbing the history and life of his region.'* (p.129) Bewick made great walking tours to and fro across England *"for his observation and improvement as an engraver"*. However, local walking in the familiar landscape seemed to sharpen his observations and connect him to the seasons:

> *'A walking tour, Berwick found could embrace nature, history, adventure and politics. Yet the most precious walk was still his weekly round to Cherryburn. ….As he walked he felt the changing year course through his blood. The regular rhythm of seeing the same scenes forwards and backwards, over and over, gave them a clarity that was almost surreal.'* (Uglow, 2006, p.129)

For environmental artist, Hamish Fulton, walking is the basis of experience. Walking Journeys counterpoints several essays including: by Fulton reflecting on his art practice, commentaries by others, and by the mountaineer Doug Scott. These provide rich insights into the experiences of walking, and how the activity affects perception of the inner and outer landscapes. From Into a Walk, into Nature, in Art in the Landscape Fulton writes: *'I walk on the land to be woven into nature….'*

'….. my art is about walking. …. What I build is an experience, not a sculpture ….. My artform is the short journey – made by walking in the landscape.' (Fulton in Fulton and others, Tate, 2002)

In The Blue Mountains are constantly walking, Andrew Wilson describes the *'attempted recovery of experience'* (Wilson in Fulton and others, Tate 2002) that defines Fulton's work:

'Fulton does not document or describe the walk but instead, through the ordering of his own responses to each walk – aims to allow the viewer to touch somehow, the experience of the walk. For Fulton the walk is about engagement, where the rhythm of the walk meets the land….'(Wilson in Fulton et al, 2002)

Through his art Fulton has reached a point to appreciate walking as a pure activity, and it is this understanding that is of particular interest to this thesis:

'Walking is not about recreation or nature study (or poetry – or "stopping" to make "outdoor sculptures"; or "take" photographs). It is about an attempt at being "broken down" mentally and physically – with the desire to "flow" inside a rhythm of walking – to experience a temporary state of euphoria, a blending of my mind with the outside world of nature.' (Fulton in Fulton and others, 2002)

In The Pleasures of Pioneering, the mountaineer Doug Scott recounts his experiences of heightened states of awareness and peace that walking brings him. This recalls both Fulton's attempt at *'being broken down'* and John Wolseley's reverie of the *'"camping alone" business'. (*Wolseley in Grishin, n.d.),

'With clear head and strength returning to aching muscles I feel at peace with myself. The usual internal dialogue ceases. Thoughts come in slowly – slow enough to notice that they are irrelevant silly thoughts that evaporate with recognition. There is for a time a widening gap between one thought and the next. In the intervening space between thoughts is where I find my peace of mind. I have not become a mindless zombie, in fact quite the opposite, as I am now more acutely aware of all and everything around me and I make all the connections.

…..' (Scott, in Fulton and others, 2002)

Thomas A Clark's prose poem, In Praise of Walking (Clark, 2000) sets out a series of observations. A selection, relevant to this study's wider interests:

> *'There are things we will never see, unless we walk to them.'* (Clark, 2000, p.16)
>
> *'The pace of a walk will determine the number and variety of things to be encountered, from the broad outlines of a mountain range to a tit's nest among the lichen, and the quality and attention that will be brought to bear upon them.'* (Clark, 2000, p.18)
>
> *'Pools, walls, solitary trees, are natural halting places.'* (Clark, 2000, p.19)

Recent research has looked at walking from an anthropological perspective:

> *'….we look at walking at different times of life and in different environmental conditions in order to understand how walking is valued and experienced…'* to see *'….how walking can connect personal and collective biographies and places in meaningful ways.'* (Ingold, Lee, 2005)

Fragmented landscape experience

In contrast to the participatory activity of walking, fragmentation of landscape experiences can occur through both, spatially separating our contact to places, or through limiting our sensory experiences: in a worst-case scenario, both. This possibility is set out humorously in Bob Jones' depiction of *The Zombie Tourist,* a product of incautious applications of new technology in interpretation, resulting in a short cut of experience:

> *'The coach swept by, full of wraith-like tourists, all voraciously consuming information from a PDA clutched before their eyes or a mobile phone wired into their ears. The coach did not pause but pressed on through that awesome place with hardly a blink of dulled eyes, hurrying to the next en-route tacky tartan "giftie" shop.*

> *What is it about this vision that disturbs?*
> *...what they had not had, was the feeling of "place" – the caress of the wind on their faces; the sound of a silver burn in spate; the musky scent of the mighty stag in trampled heather, the cacophonic silence of the mountains. Their senses in short had been anaesthetized, "schmoozed" by the technology that they so diligently upgraded ...'* (Jones, 2008, p.10)

Or put more academically, Tim Ingold sets out the same worst scenario of travel as being a disconnected and unengaged experience:

> *'For passengers, strapped to their seats, travel is no longer an experience of movement in which action and perception are intimately coupled, but has become an enforced immobility and sensory deprivation.'* (Ingold, 2007a, p.102)

Ingold's observations on movement are pertinent to fieldwork as a means of gathering information through observation. He states *'...it is not possible to wholly detach the dynamics of movement from the formation of knowledge',* and also, *'the experience of movement is bound to intrude on observation'.* (p.102) Ingold contrasts the dynamic of continuous movement through a landscape with fixed-point observations, as being fundamentally different in our formation of knowledge. He sees the latter as the dominant framework of modern thought.

> *'The knowledge we have of our surroundings is forged in the very course of our moving through them in the passage from place to place',* (and we experience) *'the integration of knowledge "along" a path of travel..... ...that knowledge is assembled by joining up, into a complete picture, observations taken from a number of fixed points.'* (Ingold, 2007a, p.87-88)

Tourists of The Picturesque, were travellers in this latter respect, being guided by pre-determined routes. This approach is also typified by the application of selected viewpoints in landscape and visual impact assessment (LVIA). Ingold compares the *going for a walk* line of the wayfarer, with the punctuated progress of a traveller making appointments: *'It is fundamentally through the process of*

wayfaring that beings inhabit the world ..... inhabitant knowledge is "alongly" integrated' (Ingold, 2007, p.89), that is, it relates to movement. Public participation tries to tap *insider* knowledge, which is essentially built up through movement and time in a landscape. The role of the Local Authority in LVIA scoping is to build in the broader experience of familiarity with a place: the planning and landscape officers providing proxy *insiders*.

Ingold also compares how whilst western peoples privilege the visual sense, non-western peoples understand the world through sensory participation, rather than external observation, and regard vision and hearing as '*virtually interchangeable'* (p.155-156). This *multi-sensorial approach* is considered more holistic and participatory, as we move through the environment. Additionally it is thought to penetrate thought and feeling in a way that vision alone does not do. Recent research on landscape experience reports that people respond to the various sensations that landscapes provide, not just aesthetic:

> *'The physical sensation of the landscape experience was also key to the overall benefit achieved ....It was as if they had a degree of "sensory deprivation" in their everyday lives and the landscape allowed all the senses to be employed once more.'* (LUC and Research Box for Natural England, 2009, p.22)

Fieldwork allows access to a wider sensory response than purely visual, thereby has the potential to support a multi-sensorial approach. The Landscape & Arts Network journal featured a course at the American University of Beirut that:

> *'...incorporates and explores movement and kinaesthetic awareness as a tool for site reading and design ....intended to address issues of landscape design not only from a visual point of view, but from a complete sensory experience'* (Weltzien, 2007, p.28),

This leads to *'embodied learning',* which enhances spatial awareness and extends concerns from predominantly visual approaches tc incorporate other

senses. Walking exercises are used to see how space and perception *'can be altered by different ways of walking and different levels of concentration and emotion.'* (Weltzien, 2007, p.31) Students also sketch each other to strengthen their observation skills. The course refers to principles developed the choreographer, Rudolph von Laban, quoted directly[3]: *'Space is a hidden feature of movement and movement is a visible aspect of space.'* (Weltzien, 2007, p.29) Also drawing on Laban's principles, Alison Campbell considers movement theory and landscapes, with analysis of dynamic character as a component of visual perception:

> *Human body movement and dynamics have a suprising amount of influence on the way that physical space is actually perceived, and how we perceive space affects how we move through it.'* (Campbell, Landscape, 2007, p.24)

Campbell recognises that *'The perception of a dynamic environment, combined with the effects produced by being a moving observer and their complex interrelationship, are considered implicit in the expertise of the professional landscape architect',* but that there is a lack of a conceptual framework of dynamics. (p.25) She also make critiques as covered elsewhere: that analysis relies on use of static images and that other sensory perception has been little researched. Laban's analytical framework, called Efforts, is proposed as being applicable to the appreciation and interaction with the environment, in what Campbell terms *'Empathetic Environmental Aesthetics'.*(p.25) By analysing the dynamic character of features, she suggests it should be possible to describe them as a *'component of visual perception'.*(p.26) She also calls for *'a closer examination of how action itself affects perception'* (p.29).

Inspired by the primitive artist Alfred Wallis, the St Ives Artists such as Ben Nicholson, Wilhelmina Barns-Graham, Peter Lanyon, and Bryan Wynter,

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[3] Rudolph von Laban (1879-1958)

'explored the possibilities of painting beyond representation and responded to the experience rather than the topographical view. Sensations of space, light and movement in two dimensions and three dimensions'. (St Ives Tate, 2006a).

In a letter to Sven Berlin John Wells wrote:

> *'If I paint what I see the result is deplorable. But how can one paint the warmth of the sun, the sound of the sea or the journey of a beetle across a rock or thoughts of one's own whence and whither.'* (St Ives Tate, 2006b)

The experience and perception of landscape

Introducing perception

> *'....people see the light of new landscapes or see old landscapes in a new light. And that light is not really a property of the outside world. Of course light is a physical experience: but the real light by which we see things and find them lovely, or beautiful, or fascinating, is more properly a quality of our thinking. While our eyes collect information, it is with our minds that we truly see things.'* (Butler-Adam in Abbott Hall, 1980, p.1)

In Yi-Fu Tuan's classic work on perception, attitude and values, Topophilia (Tuan, 1974), he compares visitors' *aesthetic* views, with the *lives and values* of inhabitants. (p.59-74) He distinguishes between the *objective,* but more abstract and distant qualities of seeing, with the more involving engagement of the other senses. (p. 10) This shift from purely visual to multi-sensorial perception is an inherent benefit in the immersion in fieldwork, rather than privileging desk-based data.

> *'Perception is both the response of the senses to external stimuli and purposeful activity in which certain phenomena are clearly registered while others recede into shade or are blocked out.....*
> *Attitude ....is a cultural stance ....* (and, more stable than perception)*.....is formed of a long succession of perceptions, that is of experience....'* (Tuan, 1974, p.4)

Art and literature: expressing the experience of landscape

Robert Macfarlane refers to the '*current surge in interest in the literature of nature and place'*. (Macfarlane, 2008) In his review of The Living Mountain by Nan Shepherd, her experience, her communication of that, and Macfarlane's response to her writing, capture the composite nature of a visual experience in descriptive prose.

'In one memorable passage Shepherd describes looking at a croft during a rain shower. The wet air acts a lens, multiplying and redistributing her sightlines, so that she seems to view all sides of the barn simultaneously. Shepherd's own style possesses a similar stereoscopic quality. Reading The Living Mountain, you experience a curious visual dissonance. Your sight feels .....scattered, as though you've suddenly gained the compound eye of a dragonfly. This effect is created by her refusal to privilege single perspective. The prose watches now from the point of view of an eagle, now from that of a walker, now from that of the creeping juniper. In this way we are brought to see the earth "as the earth must see itself". (Macfarlane, 2008)

As a photographer, Mark Johnstone has grappled with his art to try to take on *the experience of looking, and* his observations provide an account of the limitations of standard photographs in dealing with this body-centred *experiential perspective.*

'In a single photograph, the horizon is a line from one side of the frame to the other. Do we really see our surroundings in this way? No, because we look around, we don't look at. In this way the horizon is a circle, and we are always the centre of that circle.
Even though we define a circle where we stand, we need not be conscious of ourselves doing the looking, so we define a circle with a hole in the middle. That is the human condition.
As we look we also unconsciously magnify the horizon. With the discovery of perspective, a painter could covey distances by making objects appear very small. But we see the horizon as bigger than that. A photograph never does justice to the "grand view" to which we aspire because the hills in the distance are smaller than we remembered.
The human mind is easily capable of imagining its surroundings from a vantage point above eye-level. Reality in this sense is more map-like. It makes more sense to imagine things from above because the brain needs less memory to make one useful picture – like a template – from which to infer necessary information as we move about.' (Johnstone in Bradley, 1998, not page numbered)

Adaptation of natural views and development of multiple perspectives have been a ready pictorial concern for artists. Amongst numerous other examples, the following have all sought an experiential perspective: the fragmentations of Braque and Picasso, as originators of the Cubist approach; the photomontages

of David Hockney between 1970 and the mid 1980s; and the coastlines of Cornwall, by Peter Lanyon inspired, gliding over the landscape. Additionally artists have sought to suggest the qualities of other senses, often through gesture and colour, which evoke the emotions aroused or other associations. Of one of Lanyon's paintings, Bojewyan Farm, Derek Hyatt (Hyatt, 2001, p.20) describes how Lanyon said, '*I want it to stink! I want this painting to stink of the farmyard.*' An effect he achieved by suggesting a carnage of animals spilling guts-like out of a split aeroplane, an image influenced by his experiences from World War 2. (p.19-2-) However, from academic and intellectual disciplines, theory is grounded in written language, the expression of ideas tends to be written down, or verbally presented. This is discussed later in the literature review, particularly in relation to Tilley (2004).

Perception and the *Theory of Affordances*

Tim Ingold looks to the pioneering work on visual perception by James Gibson, which through an approach of *Ecological Psychology* developed the *Theory of Affordances*. Significantly this theory sets out that the perceiving organism actively seeks out information that is meaningful, and that the body and the mind are indissoluble with regard to perception. Importantly to this thesis, for Gibson perception entails movement, engages the whole range of the senses, and is rooted in action. Tilley also uses Gibson's concept and describes *affordances* as *'possibilities'*: involving the environment and the observer.

> *'Knowing is developing skills of attending to the environment, educated through practice and aides to perceiving such as models and stories of things, words and pictures which facilitate knowing. Perception is a mode of action in relation to life activities, providing knowledge of what the environment affords, and such knowledge is potentially inexhaustible because of the possibilities for sensitising the perceptual system and attuning it to phenomenal diversity of the environment: its textures, colours, surfaces, smells, sounds, tastes and sights.'* (Tilley, 2004, p.24)

Movement and perception

Tilley cites Gibson's ideas that *'perception is a fundamentally ambient activity…'*

> *'….. a flow of eventful sensuous activity opening out the body to the world. When we undertake a journey, we move from place to place, each with its own setting, its unique heterogenous character or placiality ….. Movement between places involves their sequential experience, in their description the production of a narrative.'* (Tilley, 2004, p.26)

Harry Heft (In Ward Thompson and others, 2010, p.9-32) provides a historical background on the origins and development of models for visual perception (p.10). He also refers to the Theory of Affordances in questioning traditional assumptions that the visual stimulus is a static fixed image, whereas we experience the environment in a continuous and ongoing manner. Heft is interested in the incorporation of movement as part of *'the visual experience of the landscape';* (p.9). He proposes that exploration has implications for visual perception, and that perception is a dynamic process.

> *'Perceiving typically involves more than the passive taking imposition of stimulation on receptors. Actions participate in perceiving in a fundamental way.'* (Heft in Ward Thompson, 2010, p.15)

He also regards the movements of the body in terms of looking: *'From a perceptual systems view, looking includes movements of eyes, head, and entire body of the individual….'* (p.16) Heft proposes that active participation is a fundamental aspect of perception. Further, he includes detailed proposals, such as the motivating qualities / attraction of certain physical features, that stimulate particular engagement. (p.25)

Movement and the sequential experience of space do feature in design theory, and there are several approaches to both analysis and expression of how our perception of landscapes change as we move through them, from the

perspective of application in assessments and design. This will be looked at later in the literature review.

Phenomenology and *embodied experience*

Tim Ingold references the ideas on *Phenomenology.* (Ingold, 2000, p.168-170) He draws parallels with the ecological psychology work of Gibson in so much as they regard the person and perceiver as being within the world and environment respectively. However, he uses the phenomenological approach and concept of *dwelling,* from Martin Heidegger, to extend an understanding of the self as merged with the world, such that the person has an *'embodied presence'* and can be fully considered *engaged;* the body as the *'subject of perception',* (p.169) as distinct from an object or instrument of perception.

Body-centred experience and ambiguity

Heft quotes Berleant, to express how participation manifests from direct experience:

> *'"Perceiving the environment from within, as it were, looking not at it but being in it, nature becomes something quite different. It is transformed into a realm in which we live as participants, not as observers."* (Heft in Ward Thompson and others, 2010, p.29)

Chris Tilley has been at the forefront of *Experiential* or *Phenomenological Archaeology*, with the Leskernick work an example of a significant published project that puts this academic thinking into practical action. Tilley also draws on the work of Merleau-Ponty (1962), to develop a phenomenological perspective: considering experience *'from a bodily point of view'.* (Tilley, 2004, p.2) Tilley sets out a series of interpretations of Merleau-Ponty's work, which align with some of the concerns of this thesis. (See also Chapter 7) Tilley states that because we always experience things from a particular point of view, and can

only see ahead and look around us, *'perception always involves a relationship between the visible and the invisible':*

> *'The manner with which we experience place and landscape, is however, forever unfinished, uncertain, and therefore ambiguous. The ambiguity inherent to both that which we investigate (place, landscape) and how we perceive is not a problem for analysis. Instead it provides an inexhaustible field of affordances for us.'* (p.30)

Tilley also identifies that there are optimum distances for seeing a landscape feature, and that through familiarity people *'acquire habitual knowledge'* and understand spatial relationships of size, shape, and where things are. (p.11) Encountering landscapes: *'The manner in which I experience an artefact or place, very much depends on my encounter with it'* (p.10) The sequences of approach and arrival become significant.

Standard photographic record always presents a more fixed and less ambiguous view. In fact guidance has tended to regulate the parameters of this further. (Landscape Institute, Landscape Institute Technical Committee, 2009, Landscape Institute and IEMA, 2002). However, in presenting a series of his books Richard Bradley (1998, 2000) worked with the photographer Mark Johnston, who created enigmatic photographs such as *'Template: Old King, Stone Circle'* (Bradley, 1998, front cover) and *'Ben Rinnes'* (Bradley, 2000, front cover). These are photo-montage images, which piece together a low level but full panorama overview of stone circles, creating a particular impression of the relationship between the monuments and their settings:

> *'Just one of many possibilities is that these circles are an expression of the way Neolithic peoples related to their surrounding landscapes.'* (Johnstone in Bradley, 1998, not page numbered)

The interest by archaeologists and anthropologists in how people experience landscapes has become a major concern through a range of complicated philosophical and psychological theoretical approaches; but as a photographer, whose art brings him to understandings through observation, Johnstone suggests simply that our perception and cosmology may be intimately connected and that: *'discovering the meanings of lost cultures will require the simple question to be answered: How did they look at their surroundings?'* (Johnstone in Bradley, 1998, not page numbered)

Multi-sensorial perception

Multi-sensorial perception, *'synaesthesia' and 'the fusion of the senses',* (Tilley 2004, p.14) are all ways of expressing the idea of perception that moves beyond the visual to all the senses. Tilley articulates that senses are the modality of the body's experience in the world, so that sensory experience is totality. He also suggests that (according to Dann, 1998) blending and overlapping of the senses, or *synaesthesia* could be regarded as our *'primordial preconceptual experience'*. Ingold contrasts the participatory and emotional nature of hearing, which penetrates, from the distancing and objective gaze of sight. (Ingold, 2000, p. 251-253)

Reflexivity and encountering

Applying Merleau-Ponty's thinking, Tilley describes the relationship of the perceiver and the perceived as *reflexive.* (Tilley, 2004, p.16-18) He also recognises that emotional response is embedded in our experience of perception:

> *'At the heart of all acts of perception .....even in the case of looking at something, I am "touched" by what I look at. It has an effect on me, and my perception of it ....'* (Tilley, 2004, p.17)

Whilst Tilley recognises that the acts of being touched are *'simultaneous and coincident'* but not the same (p.16), he refers to Merleau-Ponty (1964), who writes of the reversal of roles between the painter and what is being painted:

> *'....There comes a point between what is being seen, who paints and what is being painted is thoroughly ambiguous. And this is because painting is not just an act of pure vision: it establishes bodily contact between the painter, who paints with his or her body, and the painted. Painting is a bodily process linking the two (the perceiver and the perceived) ....*
> *Perception thus involves reciprocity between the body and the world and a continuous interchange between the two,'* (Tilley, 2004, p.167)

Through interpreting Merleau-Ponty's work, and with reference to the interpretation of it by others Tilley (2004, p.19) blurs the distinction between the *flesh* of the perceiver and the *flesh* of the object being perceived, *'there is no representation at the level of perception ...',* and *'that our vision goes to the things themselves': t*here is an authenticity to the process of perception that gets to a *truth.*

Participation and Metaphor

Tilley refers to Merleau-Ponty's suggestion that participation is the *'Fundamental process of perception, an active interplay between the body and that which it perceives.'* (Tilley, 2004, p.19) Additionally he looks at the interpretations of *participation* by Levy-Bruhl (1910, 1926), who refers to *primitive* systems of thought. By considering the primitive mind Tilley sees *totemism, animism*, and *analogic logic*, not as primitive per se, but as modes of human experience and participation in the world, and forms of reasoning, (Tilley, 2004, p.21) which are *'a fundamental part of our own modernity'* and *'present within us all'.* The concepts provide a participative relationship between humans and the non-human world, by accessing metaphorical associations:

> *'.....participation is a form of "primitive logic" which creates correspondences and promotes resemblances. It links together culture and nature .....in a seamless web of connections. This is a system of knowledge of the world embedded in embodied sensory experience.'* (Tilley, 2004, p.20)

This extends "modern logical thought", which is:

> *'...derived from an abstracted mental realm of disembodied ideas based on setting up categorical distinctions between things and persons, culture and nature, mind and the body.'* (Tilley, 2004, p.20)

Tilley considers anthropological concepts and thinking, more commonly associated with primitive societies, in a useful way to extend the existing emphasis on logical thought, analytical approaches and methods. Metaphor and the associated concepts of simile and metonym *'allow us to see similarity in difference.'* (Tilley, 2004, p.22)

Expression of an *experiential perspective*

Tilley seeks a *'mode of expression'* that resonates with the subject studied, but limits his suggestion for analytical description and communication to the written word:

> *'Perceptual experience can thus only be described by expressive use of language, an attempt to exploit the sensuous, evocative dimension of writing and speaking as opposed to the denotive and structural aspects of communication .... The language with which we write must attempt to capture our bodily perceptual participation in a sensorial world.'* (Tilley, 2004, p.28)

Tilley (2004, p.27) quotes Abram (1996) with respect to the importance of the *'bodily resonance'* of the spoken word, and the influence this has on *expressive potency.* He criticises the emphasis on pictorial representations (2004, p.27), seeing it as a *reduction.* The work undertaken at Leskernick (Bender, Hamilton,

Tilley, 2007), demonstrates a keen interest in innovation and experimentation in the full gamut of site notations to express the experiences of the place, as well as collaboration with artists to fully exploit the potential of imagery. Certainly it is a challenge to bridge verbal and written expression, coming as they tend to from such different roots of practice and knowledge: as Schön puts it *'conflicting paradigms of professional practice'* (Schön,1991, p.40). Tilley sees metaphor as the essence of a primary language, which links writing and image:

> *'Linguistic metaphor and the solid metaphor of material forms doubly constitute our meaning and experience, providing a meeting ground between languages and the discourses of representation and feeling, emotion and embodiment, experiential modes of engagement with the world.'* (Tilley, 2004, p.23)

Tilley's understanding about writing is pertinent as a general principle (and could have parallels with other modes of description, such as drawing) with respect to *how* the act of writing *'slows thought and perception down'* and in doing so *'becomes a medium through which knowledge of place is achieved'.*

> *Writing ..... forces one to perceive actively, to make connections, to articulate thoughts and feelings which would otherwise remain at a prereflective or practical level of consciousness. Writing is thus the primary (academic) medium of interaction between self and place and it constantly suprises how much understanding comes through the forced act of translation of experience into the written word....'* (Tilley, 2004, p.223-224)

For Tilley, description and translation mean writing, and this is the accepted form of academic expression. However, with method and techniques, *'visual appropriation'* (p.223) could yet gain a wider validity than credited in his (never-the-less) useful discussion.

Note: These themes (underlined headings in the last two sub-sections, developed from work by Tim Ingold (2000), Harry Heft (2010), and Chris Tilley

(2004), usefully draw together the key ideas regarding landscape experience and are used, along with Familiarisation, as the basis of developing a framework to address landscape experience and the potential role of field sketching in Chapter 7. See Table: 7.5.

Drawing and *seeing well*

Betty Edwards (2001, pp.XVIII-XIX) sees drawing as a skill that is made up of component skills, which once learned and integrated enables a person to draw, in time becoming automatic. She identifies five basic skills: perception of edges, perception of spaces, perception of relationships, perception of light and shadow, and perception of the whole, or gestalt; and two more advanced skills of drawing from memory and drawing from the imagination. Of note these are perceptual skills, not the many techniques of drawing.

Edwards does not see the drawing skills as being the preserve of especially talented people, or *artists,* but as a readily learnable skills set. Viewing this, and Edwards' apparent success, in relation to the question raised in Chapter 8 (*how easy is it for non-artists to learn basic sketching and visualisation skills?*) the suggestion is that it should be relatively straight forwards.

Edwards refers to *'R-mode'*, the '*visual, perceptual mode of the brain',* specialised for drawing, and giving rise to her renowned approach of *drawing with the right hand side of the brain.* She proposes strategies to activate this through a series of drawing exercises. (p.XX) The exercises have achieved empirical success, which as Edwards states, indicate that the methods work, regardless of scientific proof of her theory.

'Drawing well depends on seeing well.' (Edwards, 2001, p.XXIV)

She extends this idea to say that learning to draw also enhances peoples' perception. This understanding is fundamental to the findings of this thesis. Recognising the value of field sketching: it is the role of drawing in enhancing landscape perception. Building further on the interpretations of Gibson's *Theory of Affordances,* by Ingold (2007d), Tilley (2004), and Heft (2010) given in the previous section, the actions of movement across the landscape in fieldwork, and the hand gestures of drawing could all be argued as contributing to the generality of *seeing well.* Work done in the science of *spatial vision,* (Bruce, Green, and Georgeson, 2003) provides the background to themes of interest in the context of landscape perception: edge detection, depth perception, and motion perception. It further elucidates Gibson's *Theory of Affordances*: that a viewer *needs* to be mobile to understand the environment they are looking at.

Betty Edwards describes how artists feel while drawing; how drawing affects their experience.

> *'Many artists have spoken of seeing things differently while drawing and have often mentioned that drawing puts them into an altered state of awareness. In that different subjective state artists speak of feeling transported, "at one with the work", able to grasp relationships that they ordinarily cannot grasp. Awareness of the passage of time fades away and words recede from consciousness. Artists say thet they feel alert and aware yet are relaxed and free of anxiety, experiencing a pleasurable almost mystical activation of the mind.'* (Edwards, 2001, p.4)

John Torreano (2007) uses similar principle ideas to Edwards in developing drawing instruction that helps people to translate what they see in three dimensions in to two dimensions: seeing objects as a *'set of particular visual cues (shapes)'* and appreciating the conflict of *what we know and what we see.* (p.6) Torreano developed his approach through experimentation with *Gestalt,* (originated by Hoyt L. Sherman as a means to help US Air Force pilots with visual recognition in World War II). Perception of shape and the relationship between a whole and its parts is fundamental to drawing, and drawing can make

sense of *Gestalt* aspects of the landscape, by extracting the shapes of form and pattern.

The experience of the weather and
the influence of temporal qualities on perception

An early theory on the weather was put forwards by Goethe in his Italian Journeys, (1970) undertaken between 1786 and 1788, which whilst in his own words a *'strange theory',* (p.32) was one based on his own perception of cloud formations gathering and dispelling around mountains: a phenomena that Goethe attributed to *'their* (the mountains) *imperceptible and secret influence',* (p.31) a combination of gravitational forces and the elasticity of the air. However, whilst his scientific understanding has been superseded, his sensibility as a writer to the weather and other temporal conditions is clear:

> *'It grew darker and darker; individual objects faded out and the masses became even larger and more majestic. Finally everything moved before my eyes like some mysterious dream picture and all of a sudden I saw the lofty snow peaks lit up by the moon.'* (Goethe, 1970, p.30)

Artists are drawn impacts of the experience of the weather and atmospheric effects, for the visual qualities it affords and the sublime drama of being in the elements.

The conscious engagement with the weather and other temporal qualities is not generally been well covered by theory or instructional guidance. There is good practice understanding that for visual impact assessment the conditions should represent the worst possible scenario; that is conditions of good visibility. However, this still represents only a moment and does little to encapsulate the impacts and variety of all types atmospheric effects on landscape character, visual and scenic qualities. Certain conditions may be poor in terms of clarity of

detail, but good with respect to sense of landform, or vice versa. Mist is such an example.

Recent research on landscape experience observed the powerful impact on the weather on people's experience of visual qualities, and their capacity to induce a sense of spirituality:

> *'Almost anything could gain more aesthetic significance if experienced within the context of a dramatic shaft of light or particular colours provided by the weather.'* (LUC and Research Box for Natural England, 2009, p.35)

The following detailed quote from the illustrator Christopher Gubbs is an end note to this section on site visits, capturing many aspects covered in the sections on Fieldwork and The experience and perception of landscape, and linking across to Sketching and the sketchbook:

> *'When drawing for myself, I almost always work outdoors….. a kind of electricity accompanies drawing from life. To be effective I must be in the scene – to observe the subject first hand, of course, but also to observe the conditions far and near, including those that may not lend themselves to drawing. The drawing expeditions I've taken over the last few years have extended for periods of about six weeks, giving me time to explore landscapes in a thematic way….*
>
> *Each morning I drive somewhat as if on safari, not knowing exactly where to head or what might be discovered….seeking a hint or indication of a departure from the norm: and irregular edge – or one that is too regular – an iconic shape, or a surreal play of forms……*
>
> *Environmental factors influence where I choose to place myself for the two and a half hours of intense work each drawing demands: weather conditions, potential interference from people, my personal comfort level, the trajectory of the sun. The drawings composition and content are other immediate concerns. The subject that first caught my eye suggests only a general point of view. I must then find a specific spot from which my story can best be told…… since the impact of the subject on the surroundings – as well as the impact of the surroundings upon the subject – are equally influential, I learn a great deal by making the critical choices*

from everything before me to make the drawing tell exactly the story I want.' (Gubbs in Treib, 2008, p.100)

Drawing as craft and expression

Early years development: learning and drawing

During early years development and learning, drawing techniques develop, not necessarily for its own sake, but often as an integral part of learning other skills. The role of drawing in education is an area of great interest and recognised benefit to the intellectual and emotional development of children, communication skills, and support of learning across the curriculum. Specifically Start Drawing , by Eileen Adams outlines: the role of drawing in understanding and communication; development of observational skills, analysis, and drawing conventions; visualisation and story telling; problem solving and design; and the use of materials.

> *'Drawing emerges alongside verbal language. It is an active exploring process that enables the child to experience and understand a wide variety of perceptions, thoughts and feelings..... a drawing is evidence of both a child's struggle to understand and to communicate.'* (Adams, 2002, p.2)

Writing, mathematical notation, creating plans and maps, using signs and symbols, and picture-making activities are all meanings attributed to children's early drawings. The *figure ground* (p.8) relationship is cited as a key developmental stage in drawings, as children begin to use more adult conventions. Of particular interest is the use of drawing as a medium for investigation:

> *'.... encouraging them to focus their attention and look more closely. The act of drawing encourages a different relationship with what is being observed because it intensifies experience and extends the time for careful observation. It can help children to record their discoveries. It creates time for the child to formulate questions. The act of drawing helps to fix the experience in the child's memory and to create a sense of ownership. Drawing holds a trace of the investigation, enabling the child to recall experiences and ideas.*

> *Explorations focus on sensory experience of people, places, plants, animals and objects. Children may examine something from different angles. Through developing powers of observation, drawing can enhance young children's ability to analyse the key elements or component parts of things encountered. Drawing gives children practise in sorting, categorising, making connections and seeing relationships.'* (Adams, 2002, p.10)

This summary is a validation that can be applied also to drawing for student and professional practitioners. In relation to storytelling, children's drawings sometimes *fuse time and space* (p.12) into a single complex image. The relationship to experience, lived or imagined, is the generator of images, not representation of a scene. In these respects bringing an understanding of children's drawing as a thing in itself, rather than as a stage to something else, provides a parallel to the development of composite, complex, or multiple perspective images, as covered later in the literature review. See Landscape representation.

Solving self-generated or posed problems, *'will involve organising information, making judgements, choices, and decisions, as well as deliberation and imaginative leaps'.* (p.20) Importantly the flexibility of drawing, the ease to extend, alter, do again, or do better next time, embeds the testing of ideas, and generation of options and alternatives, in the process. Thus the drawing process supports exploration of design solutions, rather than the right and wrong answers that can be encountered in aspects of the educational curriculum, and *scientific* approaches to problem solving.

> *'Through drawing a child can formulate and "make visible" a hypothesis about how the world is and think about how it might be ….. The drawing can reveal keen insights about the nature of the world. Drawing has a powerful role in supporting a child's ability to design.'* (Adams, 2002, p.20)

In the early years there is no distinction between the formalities of drawing and mark making, and a spontaneous appreciation of the qualities and suitability of materials for diverse situations grows through experimentation and practise. The value of children's use of different mediums is stressed:

> *' Through experiencing a range of materials, tools and processes the child will become more discriminating in making choices regarding the use of media. This entails understanding their uses and qualities and being aware of their potential and limitations.'* (Adams, 2002, p.22)

The understanding about the role and value of drawing applied in education of children can be useful in the evaluation of the activity in adults. Acquiring the skills of drawing, and practise, appears spontaneous in children, as it accompanies the broader spectrum of their development, and thereby extends far beyond *learning to draw* per se. However, the use of drawing as an activity to mediate other things; understanding and communication, investigation and recall, engagement, analysis, storytelling, and design, is interesting. Arguably the aim of acquiring the skill and practise should be to achieve these things, rather than succeed in making a *good* drawing, or representational image.

The craft of drawing and role of practice

Laurie Olin compares the practice involved in learning our mother tongue language with that required for learning to draw:

> *'Those of us that have been somewhat successful "teaching" drawing have done so by immersing or students in its practice, with lengthy sessions, tons of assignments, trips to sketch in interesting places (zoos, parks, museums, the city), and lots of exercises in the fundamentals(still life set ups of various objects, plaster casts) and of great interest (life drawing both clothed and not)....'* (Olin in Treib, 2008, p.831)

Olin sets out the range of drawings, quick sketches, mechanically constructed perspectives, and others, undertaken and exposes students to the work of others. He credits success with time commitment and mental investment.

Donald Schön sets out the difficulties of acquiring the competencies of an experienced professional practitioner:

> *'An experienced practitioner cannot convey the art of his practice to a novice merely by describing his procedures, rules, and theories, nor can he enable a novice to think like a seasoned practitioner by describing or even demonstrating his ways of thinking. ....we know very little about the ways in which individuals develop the feel for media, language, and repertoire which shapes their reflection-in-action.'* (Schön, 2002, p.271)

Richard Sennett regards skill as trained practice; he considers the role of repetition in acquiring skill, and the role of good technique in sustaining the attention span, thereby allowing repetition without boredom (2008, pp.37-38). However, far from stifling creativity, he sees *'Eureka'* moments as being embedded in routine. He links *intuitive leaps* (p.209) to craft, and introduces a model through which such apparently isolated moments of genius can be broken down in to understandable and repeatable stages. Sennett sees the role of crafts as valuable in a contemporary context. This approach is of great relevance to the question of this research: Can the old technique of field sketching be reviewed and refined for contemporary use?

Understanding an activity as a craft, as set out by Sennett, allows the benefits of the *problem solving – problem finding* (p.38) cycle of capacity building around a task to be understood, rather than a more defined problem with a fixed end point. It is this value as a dynamic process of engagement that is of particular interest. Sennett breaks down the learning and practice of craft in to developmental stages, as well as aspects such as ethics. Of relevance to field sketching and associated visuals:

Repetition through tracing and practice

Repetition through tracing provides practice in terms of both drawing skills, and a deeper engagement with the subject. The former may be most useful to the student, whilst a tracing process to help familiarisation with the subject is likely to be useful to student and practitioner. (Sennett also compares the use of Computer Aided Design with hand drawn plans in this context.) Practise thereby remains interesting through its structure using the hand and eye, with people learning and improving through repetition.

> *'We have trained our hands in repetition; we are alert rather than bored because we have developed the skill of anticipation. But equally, the person able to perform a duty again and again has acquired a technical skill, the rhythmic skill of a craftsman.'* (Sennett, 2008, p.177)

Self-conscious awareness and tacit knowledge

Sennett introduces the idea of *embedding*, as *'the conversion of information and practices into tacit knowledge'*, and recognises this process as essential to all skills. Tacit knowledge is that learnt by doing. Research suggests that it takes ten thousand hours, or three hours a day for ten years, for complex skills *'to become so deeply ingrained that they become readily available tacit knowledge.'*(p.172)

> *' ....much of the knowledge that craftsmen possess is tacit knowledge – people know how to do something but they cannot put what they know in to words.'* (Sennett, 2008)

Stages of competency

Sennett (2008) sets out a dynamic within learning and practice. There are limitations and benefits at different stages:

- Teaching and learning: you can teach and learn processes and techniques, but whilst invention and experimentation can be facilitated, they come through practise.
- Doing: there is a dialogue within practise between automatic / subconscious and conscious thought.
- Recovery: consciousness is most activated at the learning stage, and within practise when it is necessary to respond to loss of control.

Sennett describes how the willingness to make an error is fundamental to the development of technique for a musician:

> *'Practicing that attends to momentary error at the fingertips actually increases confidence: once the musician can do something correctly more than once, he or she is no longer terrorised by that error. In turn, by making something happen more than once, we have an object to ponder; variations in that conjuring act permit exploration of sameness and difference; practicing becomes a narrative rather than mere digital repetition; hard one movements become more ever deeply ingrained in the body; the player inches forwards to greater skill'* (Sennett, 2008, p.160)

Similar observations can be made for drawing: as drawing is not mechanical, and mistakes can and do happen. The moment of a mistake or of *letting go* of a preconceived idea can be critical and the turning point in the success of a project. It is the *recovery* process that re-engages the practitioner again, sometimes to address the task more properly. Sennett considers Chinese cookery and also Zen writers, who explored the ethics of letting go in archery. (Sennett, 2008) He suggests that the hand-wrist-forearm movement in these activities is used in precise control of movement, the closely connected application of minimum force, followed by letting go. In drawing too, the artist seeks line quality through both choice of materials and application of pressure. Letting go is a mental check that operates through the spectrum of decision-making in an activity, from larger to more subtle movements.

Recognising this very human process (arguably spiritual), and the significance of arriving through a rich process of awareness, can allow a re-evaluation of the benefits of hand drawing, and the potential limitations of technologies that are sold on accuracy, speed, and infallibility. Uniquely the process of hand drawing demands:

- A constant shift between conscious and unconscious states.
- A continuation of *learning* as practitioners.

Materials and the techniques of mark making

The main forms of mark making employed for sketching are variations of linear work: the pencil, pen, or nib and ink; and wash work, such as with brushes and watercolours. A wide range of additional effects can be achieved through crayons, resists, collage, and other *found media.*

Catherine Dee explores *'how medium, process, idea, and environment exist in a dynamic yet essential relationship'* (In Treib, 2008, p.60) in drawing. Monochrome work is recognised as one of four characteristics, (including also: marking territory, erasure, and the speeding or slowing of time), and valuable (p.62), as it:

- Focuses and directs our attention through its economy.
- Is a form of abbreviated abstraction.
- Stimulatescontingency and openness because of the gaps it leaves.
- Draws attention to the conveyance of ideas, rather than resemblance, through removal of colour.

The quality of watercolour as a quick drying and portable painting medium that can be used whilst travelling, is noted as having been important to artists through the Romantic Movement, who travelled initially in the Lakes and Scotland, and also in Italy. (Abbott Hall, 2008a) The use of watercolour *in plein air*, became particularly well established during this period. J.W. Turner (1775-1851) '*raised the status of watercolour*' (Tate Britain, 2007-2012) beyond that of a coloured drawing to painting. Working both outdoors and in the studio, he developed innovative methods. He made over forty travelling tours, making sketches:

> *'Sketchbooks were a vital part of Turner's working methods. They were small, light and easily carried around during his travels. Turner preferred to sketch in pencil on the spot and then, if necessary, add watercolour or other media later on. He would refer back to his sketches as he developed compositions in the studio, sometimes months or even years after the event.'* (Tate Britain, 2007-2012)

Similarly, regarding Edward Lear:

> *'In later watercolours Lear often sketched in pencil in the countryside, before adding ink and colour washes in the studio.'* (Abbott Hall, 2010b)

Mike Chaplain reconstructs Turner's watercolour techniques, providing an understanding of how Turner worked, but also an instructional film. (Chaplain, n.d) The techniques include: dry paper techniques as used for quick colour notes whilst out and about; resist techniques to isolate light shapes within darker tonal washes, objective drawing to *'find out what the object is like and what it is made of ….. but not an emotional drawing'*; energetic tonal work that transfers energy from the landscape and Turner's temperament on to the page; scratching out techniques to develop subtlety and careful narrative description within the bolder abstract washes; and studio wet-in-wet techniques working on saturated paper that allows colour mixing on its surface and using dried out brushes to lift colour through capillary action.

Chaplain attributes the spatial quality of Turner's work to: tonal contrasts built up in the composition of foreground, mid distance and background layers; the type of brush marks, hard edged to softer with recession; but also to the texture of the colour pigments, courser in the foreground and finer with distance. The versatility of the brush with harder and softer bristles is noted, and also that Turner shaped the handle end, such that it could be used as an italic nib. Notably, Turner referred to Goethe's Theory of Colour, an annotated copy of which is currently on display at Tate Britain. (Tate Britain, 2007-2012)

Expression of the experience of landscape character and visual qualities

Chapter 1 outlines some of the key historical aspects of observational drawing, and drawing outside, by artists, those interested from a natural science perspective, or combinations of both. David Attenborough considers Leonardo's treatise on botany, where his artistic interest and expression of the character of foliage is clear:

> *'The manuscript also includes many passages on the fall of light on leaves, actually more germane to the treatise on painting than to one on botany ...."The part of a tree which is against shadow is all of one tone, and where the density of trees and branches is greater, there it is darker because light has less of an impression there. But where the branches are against other branches, there the luminous parts show themselves brighter, and the leaves shine as the sum illuminates them."'*
> (Attenborough and others, 2007, p.60)

Particular to landscapes is the concern with space, as defined by the surface of the land, the topographic structures of mountains and plains, but often more strongly felt through the treatment of atmospheric effects. Artists have sought out situations where the weather is a component of the landscape, for the emotions, drama, inspiration, and visual qualities it affords. On J. Ruskin (1819-1900) of his stay at Mornex:

> *'He looked forwards to sketching the mountain scenery, but found the winter weather at Mornex disappointing, with no storms or fine sky effects.'* (Abbott Hall, 2010c)

About his execution of Dawn, Coniston, working with and was attracted to the temporality of dawn light and misty weather:

> *'This watercolour is an acute observation of the effects of light, colour and reflection as dawn mist forms over the lake. Ruskin uses rapid washes of watercolour over pencil to capture the fleeting effects of early dawn. Colour notes indicate that he might have intended a subsequent more detailed watercolour, but the washes have been developed sufficiently to create a completed work.'* (Abbott Hall, 2010d)

And working at Interlaken:

> *'Ruskin focuses on the dramatic contrast of bright sunlight and shadows as thick cloud encroaches on the mountainside. He combines loose waterolour with areas of detail. This enables him to achieve a sense of space which is not always apparent in his earlier more concentrated compositions'* (Abbott Hall, 2010a)

Expression of the weather generally entails the expression of movement and light, less tangible or fixed, and often is considered to stir emotion. Execution of these qualities also demands a freer and more gestural response by the artist. This impact of the weather on the scenery was a component of the *Romantic Artists'* pictorial interest. Constable said: *'Cozens is all poetry.'*

> *'He* (J.R. Cozens) *achieves a brooding sense of scales and the muted colours produce an atmospheric light and mood of melancholy.'* (Abbott Hall, 2010e)

The Cumbrian landscape artist Donald Wilkinson's is interested in the weather, and uses the convenience and small size of a sketchbook to respond to rapidly

changing conditions with quick sketches, which he later works from in his studio. Wilkinson follows Constable's lead studying clouds.

> *'I make drawings in a sketchbook as I walk through the landscape; working very quickly, trying to capture the cloud shadows on the breast of a fell or the change in the formation of the evening sky. ....I attempted to draw the on-coming of a snowstorm as it moved across the front of Saddleback, like a curtain being drawn across, and then clearing to leave a clean-washed fell side. I am not only concerned with how a place looks but more importantly the experience of being there.'* (The Wordsworth Trust, 2005, pp.34,35)

Wilkinson was a friend of Winifred Nicholson, who also had a connection to Cumbria and was concerned with colour and light. Nicholson reached beyond the surface appearance of the landscape in her work to express metaphysical experiences:

> *'There is a sense of the mystical in much of Winifred's work ..... She considered the act of painting fundamentally uplifting and ....all her works are joyful as she wanted them to bring something positive to those who looked at them.'* (Strang, 2003, p.27)

Nicholson believed that colour is analogous to human emotion. Working with the effects of light and weather off the west coast of Scotland, and with flower studies, both her responses to nature, and the desired effect her paintings had on others, was of emotion. The diffuse effects of light and iridescent colour create a veiled quality: a sense of "other" beyond.

> *'Winifred liked to paint in places where the light had quality of dispersion and reflection, and large sheets of water affect light in both these ways.'* (Collins, 1987, pp.27,28)

Movement and gesture, the quality of line

> *'....the hand-drawn line offers a mode of exploration that goes beyond the mental. The kinaesthetic enters in – we learn from the physical feel of gesture and movement.'* (Dubovsky in Treib, 2008, p.72)

Tim Ingold considers the responsiveness of the tools of drawing to gesture. He compares the flexibility of the brush, with the fixed nature of the nib; the pencil being somewhere in between:

> *'As the predominant instrument of drawing in the Western tradition, the pencil affords a considerably greater degree of flexibility than the pen, and is not unlike the brush in this respect.'* (Ingold, 2007a, p.134)

Ingold cites the masters of Chinese calligraphy as deriving the gestures inherent in the quality of their lines from observations of movement in the outside world: falling water, birds in flight, the solidity of mountains:

> *'....these master calligraphers, while ostensibly writing, were also drawing what they observed. But it was not the shapes or outlines of things that they sought to render; the aim was rather to reproduce in their gestures the rhythms and movements of the world.'* (Ingold, 2007a, p.134)

He also connects the notions of observation and movement, with the gesture of the hand and expressiveness of the mark's made: *'the apprehension of movement, and its gestural re-enactment, is fundamental to the practice of drawing.'* (p.129) Ingold refers to Paul Klee's *line that goes out for a walk,* valuable as being both *active* and *authentic.*

> *'....such lines embody the gesture and duration of being there and as such show a direct response.....in reading it, the eye follows the same path as the hand in drawing it.'* (Ingold, 2007a, p.72)

The freehand sketch line can exemplify this sort of mark, responsive and expressive. This is compared to the *assembled line* that is plotted between predetermined points, and has been *'shorn of its movement'.* (p.75) This is

typified by either constructed drawings or computer generated lines. Ingold states that the freehand line is more able to give the impression of real surfaces, than compared to the ruled lines of CAD.

> *'....we perceive edges as edges, not as lines, and however sharp they may be .....this perception is always inflected by the characteristic texture of adjoining surfaces. A freehand line can convey something of this texture, whereby a ruled line cannot....the sketch embodies its history on a single sheet, you can only reconstruct the history of a CAD process by stacking a whole pile of sheets in a genealogical sequence.'* (Ingold, 2007a, pp.166,167)

The movement of walking as part of sketching, and the movement of the hand in the gesture of drawing are both as important as the more obvious movement of the head and eyes in activating our perception. Ingold extends the significance of movement in hand gesture to that of the whole body, and compares the calligraphic gestures of the Chinese masters to those of a dancer's in recognising the importance of movement *'in both, the entire body is caught in the action.'* (p.134) Interestingly in the case of Chinese characters learning the characters is through movement, *'writing in the air'*, (p.135), as *'remembering the movement is easier than remembering the designs as graphics – the memory is in the gesture.'*

This understanding is re-iterated through Richard Sennett's work on the crafts (2008), as well as being embodied in Schön's work on reflective practice (2002) both of which consider how tacit knowledge is built through the actions of *doing.* Dancers talk of about *muscle memory* necessary to truly learn a choreography, and similarly guitarists talk of *finger memory.* It is likely that the vast repertoire of artists' techniques arises more through the actions of their craft than by recognition of the graphics qualities. This casts some doubt on the instructional benefits of the many *how to do* books, which demonstrate through the graphic result, as compared to practical tutorials.

Tim Ingold further contextualises writing as possessing the direct link between observation and the gesture of the hand:

> *'For writers of the past a feeling or observation would be described in the movement of a gesture and inscribed in the trace it yields. What mattered was not the choice and semantic content of the words themselves .....but the quality, tone, and dynamic of the line itself'* (Ingold, 2007a, p.128)

He quotes the scribe Rosemary Sassoon directly:

> *'The form and line of a letter ....is as sensitive and expressive as the line quality in a drawing, and as individual as the interpretation of colour and light and shade are to the painter.'* (Ingold, 2007a, pp.128,129)

In conclusion to these interpretations, the gesture of drawn line quality should be rooted in observation, and associated movements of body, hand, and eye. Observation in gesture, and gesture in expression should underpin the essence of a drawing. Tim Ingold's understanding of drawing and visual perception can be readily facilitated by sketchbook work, where the walking and drawing of field sketching both entail movements and actions, and there can be absolute freedom in terms of positioning of the viewer and their orientation in relation to the perceived subject.

> *'In painting, as also in drawing, observation and description go hand in hand. This is because both painting and drawing entail a direct coupling between the movement of the artist's visual perception, as it follows the shapes and contours of the land, and the gestural movement of the hand that holds the brush or pencil, as it leaves a trace upon a surface. Through the coupling of perception and action, the artist is drawn <u>in</u> to the world, even as he or she draws it <u>out</u> in the gestures of description and the traces they yield. As I have already mentioned, there is much in common between the practices of anthropology and art. Both are ways of knowing that proceed along the observational path of <u>being with</u>.'* (Ingold, 2007b)

As indicated by the practitioners who keep sketchbooks, and artists such as Turner and Thomas Bewick undertaking their *tours,* we can take a sketchbook out, but working with sketchbooks also takes us out in to the landscape to observe directly and *be with.*

> *'Drawing is an ongoing mirror, at once both kinaesthetic and physical, involving balance, rhythm, speed (or slowness), sense of direction – strength, subtlety, grace – all the physical cues we get from the world to allow us to jusdge the efficacy of our actions. Drawing is a way of reflecting the world, and of entering in.'* (Dubovsky in Treib, 2008, p.72)

Field sketching

Sketching and the sketchbook

> *'Drawing is the discipline by which I constantly rediscover the world. I have learnt that what I have not drawn, I have never really seen, and that when I start drawing an ordinary thing, I realise how extraordinary it is'* (Franck, 1973)

In his Architectural Journeys, Antoine Predock (1995, p.6) captures the spontaneity of sketching and travelling, a freedom of approach that infects later design work, but which at the outset is very much part of his encounter with particular places and the materials they offer for mark making:

> *'Recording an experience via drawing embodies much more than an analytical intention ….I was travelling on my motorbike with only the bare essentials. I carried only a sketchbook and India ink, and used objects I found on the site as drawing tools, bird feathers or twigs or Popsicle sticks I sharpened with a knife. Whatever was there I drew with.'* (Predock, 1995, p.6)

Laurie Olin has worked as a landscape architect for many years, but from a varied background in drawing practice. (Olin, 2008) He considers his drawing to have *'atrophied'* (2008, p.97) whilst in landscape architectural practice, limited to: *'…mostly while travelling or on vacation…'* (p.97) With regard to sketchbooks Olin introduces a selection of his work with the following, about sketchbooks:

> *'…. They impose certain limits of utility while affording a durable and portable locus for experimentation, recording, and note taking..'* (Olin, 1996, u.p.)

Olin points to the sketchbook work of Turner, Le Corbusier, and Louis Kahn, interms of the facilitation of continuous travel; and the sketchbooks of Picasso, *'…to record study after study while working through problems…'* (u.p.)

An article in the American journal Landscape Architecture, showing a selection of *'landscape architects who still carry sketchbooks'* (ASLA, pp.86-95), similarly saw the participants commonly drawing whilst travelling: generally on vacation, rather than for work. The article offers through questions addressed, an informal survey of sketching practice. Each participant outlines, their inspiration for outdoor drawing, frequency of working outside, how long a typical sketch takes, materials used and technique, and how the sketches influence their design work: a somewhat rare reference for the specific subject of this thesis.

Whilst the choices of sketchbooks vary, all showed particular preferences, or otherwise in Abbott's case: *'loose papers in a portfolio (I don't like journals)'.* (ASLA, 2009, p.90) The sketchbook though is generally considered the transportable item of choice, and with other materials, the dilemma is between the potential for mark making and convenience, described by DeLorenzo:

> *'I usually carry a small to medium sized sketchbook, usually 5 by 7 or 8 by 10 inches, and a good quality paper .... They have to either fit in my briefcase, in my bicycle panniers, or in a backpack. The most important thing is to have them with me when inspiration hits ....'*
> *I've tried over the years to make my materials as convenient as possible rather than having them slow me down. ....Sometimes I have actually used quill pens and India ink, which I like the best, but they are a little too clumsy to carry around. ....I also carry a small travel pack of watercolors, and sometimes I will add color to the sketches, either as a full watercolor or with no line work or using the watercolor to enhance the color elements of a pen and ink sketch.'* (ASLA, 2009, pp.94,95)

The process of sketching is organic; the sketch arising out of its circumstances and time available in its becoming, as described by Kelly:

> *'I do not impose deadlines or time limits on sketches. The elements themselves or those around me impose those limits. If I am sketching on a bus, then the length of the bus stop becomes the parameters of the sketch, and the lesson learnt is to quickly analyse the content in a triage*

> *format. First you must see the critical elements to form and set those down on the page, then the second most critical, and so on. Before you know it the bus is moving and the sketch is what it is.'* (ASLA, 2009, pp. 92,93)

Generally though sketching is regarded as a quick activity. Abbott: *'10 seconds to 15 minutes. I haven't the patience for anything longer anymore'* (ASLA, 2009, p.90) or Blossom: *'A typical sketch takes 20 to 30 minutes.'* (ASLA, 2009, p. 89). However, a sketch can be seen as an excuse to *'slow down'*. DeLorenzo: *'Many times on vacation, I will stop for 10, 15, 20 minutes. At the most, I'll spend two hours on a sketch, but very few take more than a couple of hours.'* (ASLA, 2009, pp.94-95). Issues of when to start, when to stop, how to keep motivated, *letting go*, are all concerns for the sketcher: the processes of movement through landscapes and drawing have their own dynamic and making a sketch become a period of attunement:

> *'There will be moments during the day when you feel desperate to the point of wanting to quit. You may even tell yourself that you are bored. I have found out that these moments of despair often come when at last the ego gives up trying. It is the point where real seeing, where "meditation" can start' (Franck, 1980, p.39)*

The notion of drawing as meditation has a strong link with intuition. See also later section, Generating form and landscape fit, subsection Intuitive leaps. Within the action drawing helps a more contemplative mindset:

> *'At its best drawing is a kind of meditation. We begin to sketch, and before we realize it the world of distractions begin to slip away. We are alone – intimate with the object at hand, or the image in the mind – with the impression made on a sheet of paper.'* (Gubbs in Treib, 2008, p.100)

In spite of the advent of computer-aided design and 3D visualisations the sketchbook remains regarded as a valuable design tool, *'a portable and*

immediate designer's companion' and is noted as providing a personal space for observations:

> *'As a designer, perhaps the most useful part of a sketchbook is the sense it gives you of intimacy with a place. For a moment you shut out the rest of the world, concentrate intensely on what you see, smell and feel, and then start to experiment with where the ideas might meander.'* (Wilkie 2007, p.16)

And important as a medium to explore and test ideas beyond purely visual aspects:

> *'I believe that design is the curator of our physical environment and drawing provides the tactility that is essential to the process of making a physical place. My sketchbook provides the knowledge base to ensure that the physical, tactile and spatial understanding are explored before anything I design is realised.'* (Oslund, 2007, p.19)

Charles Waldheim considers how the vertical picture plane of a view is brought on to the flatbed of the light table, the drawing board and the laying out table. He introduces the idea of *'the flatbed'* as being '*simultaneously a representation and projection mechanism.'* (In Corner,1999, p.134) The sketchbook interestingly provides both these potentials in the context of site visits.

Marc Trieb sees the portable and sequential sketchbook format as being particularly useful as a part of drawing practice:

> *'Beginning and experienced artists and designers maintain sketchbooks for a reason: drawing demands an immersion in a situation, drawing tests our observations, drawing within the confines of a sketchbook nudges us to take more care, to learn from the previous page and improve on the next one.'* (Treib, 2008, p.x-xi)

Technical aspects of field notes and sketching for non-artist / designers

Peculiar to landscape architects is the motivation, arguably verging on obsession, to annotate sketches, often instilled at college, emphasising the role of the sketch in gathering and communicating information. Kim Wilkie reflects on his tutor, Michael Laurie:

> *'.... He drummed in to us that landscape sketches are information and not art. We had to scribble fast – we just got 60 seconds per image – and then cover the drawings with annotations. .....*
> *it is the meaty annotated sketches that make you stop still and take the place in.*
> *Words are as important as images. The sounds, sensations and individual character of a place can only really be captured in description. Landscape is such a jumble of associations and emotional reactions that it takes the complexity of language to explore what is going on.'* (Wilkie 2007, p.16)

Bill Tucker, introducing annotation, during a graphics tutorial at Edinburgh College of Art:

> *'It may seem wrong now, but after a while it will be difficult for you to make a drawing without writing on it.'* (Tucker, 1998, personal communication)

Charles Waldheim notes reading the landscape as being a *'semiological'* rather than *'optical'* as an activity. (Waldheim, 1999, p.134) In sketching and sketches this is potentially reinforced through the use of annotation. Certainly it draws out non-visual information, as stated by Wilkie (2007, p.16). Tim Ingold refers to *'writing on drawing'* for architectural sketch drawings, as being used only *'for what cannot be drawn.'* (2007a, p.124) He also notes that the gesture of the hand in drawing runs seamlessly in to the act of writing, (2007a, p.124)

Anthropologists distinguish between the practical engagements of ethnographic fieldwork and later descriptive accounts. Tim Ingold is interested in the importance of hand written accounts for these two stages. And with respect to

writing up ethnographic field notes in to the '*account, based on reflection, analysis, and interpretation, usually in a place well separated from the field'* (p.128), whilst description could be undertaken by a typewriter, this precludes the ready inclusion of a drawing as part of the same *seamless gesture*.

Landscape architecture has developed technical systems of site assessment and graphical conventions that underpin design decision. As outlined in Chapter 1, this stage of practice has tended to change, with site notation systems relying more on photographs, and remote automated digital systems of survey reducing the need for fieldwork. However, another issue, explored more thoroughly in Chapter 7, is the need to find landscape approaches and techniques that address the experiential aspects, and build in more awareness and understanding of the human dimension and social value: how people use landscapes, their functional and emotional needs from them. Fieldwork is essential to access *the user needs,* as expressed by Kathy Southwell in using behavioural science to help structure a *'user-centred approach'* to landscape design. (Southwell, 2004, pp.149-151).

Kevin Thwaites and Ian Simkins, in seeking to develop an *'experiential landscape approach'* (Thwaites and Simkins, 2007a, 2007b) have developed *'a range of field observation and participative techniques to generate maps that graphically represent .....(augmenting conventional survey and analysis techniques) ..... explicit experiential information'.* (Thwaites and Simkins, 2007b, p.31) Developing field notations systems that are fit for survey, information gathering and analysis, and communication purposes, must be a necessary component of developing new approaches. In the absence of practical techniques, new theory can't be advanced in to practice. Field notation literally shapes how we think about a place.

Annotated sketch plans are readily achievable by most people and relatively quick compared to more formal surveys, with basic skills only required, either of drawing or surveying. The Leskernick Project diaries provided insights to how archaeologists and other participants used site notation, including annotated sketch plans for accuracy, and less conventional, more expressive drawing materials to indicate qualitative aspects:

> *'We used a 2b pencil that enabled the drawing to convey something of the material qualities of the stones not normally shown in traditional archaeological drawing. We were conscious that the rough crystalline and weathered qualities of granite should not be ignored and also that, ….the two dimensional drawn image could never really convey the three-dimensional experience of standing over the stones ….'* (Tilley and Bennett in Bender, Hamilton, Tilley, 2007, p.57)

Tilley on '*representing reality in words'*, from his diary, June 1999:

> *'We can never really describe reality. It is a mess. In order to explain and interpret we have to simplify, make things clearer than they really are, sort out the essential from the inessential. …..It is all a process of creating order, searching for pattern and establishing links between things.'* (Tilley in Bender, Hamilton, Tilley, 2007, p,58)

This is true of a sketch too; we select out essential from inessential, as well expressed by Kelly. (2009, p. 92-93) We can probably only appreciate this effectively when confronted with reality though, or the awareness of what constitutes *'critical elements'* becomes dilute, as we interpret interpretations. Describing *reality* is always an interpretation. The Leskernick diaries (Bender, Hamilton, Tilley, 2007) are interesting as they span a prolonged period of fieldwork and the full dilemma and frustrations of the archaeologists in wanting to note both objectively, as per their *science* and convention, and more expressively to describe the *reality* of how the place seems, which encompasses their artistic sensibilities too. The project provides an example where the

participants reflected consciously on site notation, embracing discussion and multiple interpretations:

> *'Our context recording sheets .....were expanded to have sections for "discussion", "interpretation prior to excavation", and "interpretation on completion of excavation",'* (Hamilton in Bender, Hamilton, Tilley, 2007, p.74)

And accommodating the implications of reflection when processing survey work:

> *'....we ...have used our diary entries to give a feel of the hesitations and contradictions, the differences of opinion, the making and unmaking of interpretations.'* (Bender, Hamilton, Tilley, 2007, p.93)

Rather than the final report, *removing the alternative readings of the site.* These are regarded as valuable in understanding the site, and in giving the reasons that certain interpretations were favoured over others. Site notes can provide an audit trail as to why certain decisions are taken, and in the case of Leskernick, this detailed the collaborative process too.

Returning to the thesis' core interest in applied field sketching and other site notations, the War Office's Manual of Map Reading, Photo Reading and Field Sketching (The War Office, 1929) offers as close an example of *instruction manual* as found. This is interesting as a counterpoint to highlight some of the fundamental and unchanging principles, against variables arising out of application. As an antithesis to an *arts approach*, this also offers an example on the extreme end of the gamut between *analytical* and *expressive* sketching approaches and styles. Within the context of *'A Military Sketch'* (pp.95,96), the book sets out the *Objects,* and *Principles and Methods,* of field sketching.

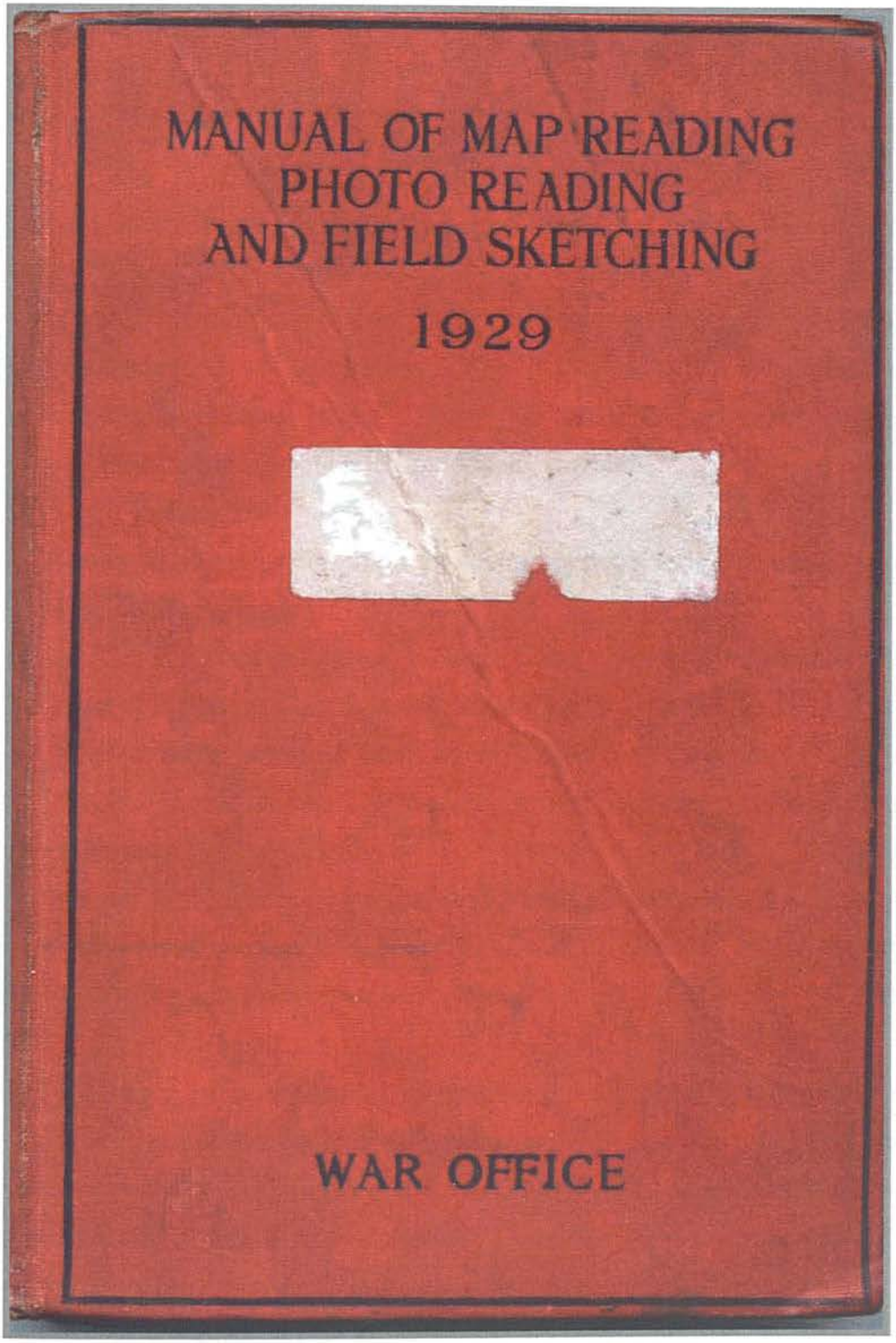


Fig. 7.1: War Office publication (War Office, 1929)

Landscape drawing, analysis and design

Reflection-on-action

Donald Schön frames the specific issues facing designers as typical of those encountered in professional practice, where knowledge is embedded in the *doing,* tending to remain implicit. The characteristics of landscape assessment and design processes can be considered in relation to Donald Schön's definition of *'reflection–in-action'*. (1991) Schön's list of *'knowing-in-action'* (1991, pp.49-50) is interpreted in relation to landscape practice:

- Landscapes are phenomena for which it is not possible to give complete or accurate descriptions.
- In making an assessment innumerable judgements of quality are made, for which it is not possible to state, or even know, all the criteria.
- There is not a fixed procedure for the assessment, as it changes to suit circumstances; landscapes are unique, and practitioners interpret guidance differently.
- Practitioners base decisions on known or tacit recognitions and judgements, based on similarities and differences, and the potential to achieve *landscape fit*, not on fixed theories or techniques.

Until the landscape profession can articulate the assessment and design aspects more clearly many of their processes will stay obscure. The *how to* and *doing knowledge* will remain embedded in professional practice, and the background to decisions, *the evidence base,* difficult to access. Schön considers that through the *'demystification'* of professional knowledge *'....it may mean that professionals do know something worth knowing.'* (p.289)

> *'When a practitioner does not reflect on his own inquiry, he keeps his intuitive understandings tacit and is inattentive to the limits of his scope of reflective attention. The remedy to the mystification of practice and to the constriction of reflection-in-action is the same: a redirection of attention to the system of knowing-in-practice and to reflection-in-action itself.'* (Schön 1991, p282)

Schön also indicates the difficulty of explaining: *'anything like a description of intuitive knowing would produce an excess of information.'* (p.277)

Schön's work, setting out 'reflection-in-action', offers the conceptual framework and pattern or structure through which to unpack reflective practice. The stages he identifies are: problem setting, familiarisation, *on-the-spot experiment,* reaching satisfaction and testing through *virtual worlds.* (pp.128-167) These are considered in more detail, and again interpreted in relation to the activities of a landscape architect.

Problem setting / reframing

Schön recognises the role of the designer in generating options rather than solutions, starting at the outset from how a problem is *framed.*

> *'He shapes the situation, in accordance with his initial appreciation of it, the situation "talks back" and he responds to the situations back talk'* (Schön, 1991, p.79)

For landscape architects this involves the relationship with the client or client group in agreeing the brief under-pinning the *landscape architects appointment*, but also in a more general sense the technical, social and aesthetic problems that they must understand and articulate in developing design options for a particular landscape. An important aspect for landscape architect's is *reframing,* as the landscape implications of client's briefs have to be understood, and the landscape possibilities identified, thereby recognising a site's sensitivities and opportunities.

Landscapes are always unique and complex: understanding landscape problems requires an involved approach. In Schön's words: *'the problem is how to frame the complex problem?'* Schön makes special reference to how artists work, and their seemingly spontaneous approach to complexity:

> *'His artistry is evident in his selective management of large amounts of information, his ability to spin out long lines of invention and inference, and his capacity to hold several ways of looking at things at once without disrupting the flow of inquiry.'* (Schön, 1991, p.130)

Past experience & familiarisation

This stage of *reflection-in-action* involves bringing past experiences to bear on a situation. Whilst no two landscapes or landscape briefs are the same, for a landscape architect this involves drawing on their design and project repertoire. The design repertoire is generally organised around *design principles,* learnt and understood through experience. The nature and variety of landscape work, and the demands of the technical knowledge required for design and implementation stages alone, means that landscape professionals tend to specialise, to be more efficient undertaking work (as well as for personal interest). However, problems will never have a standard solution and need an inquiry *'into the peculiar features of'* a situation. (Schön, 1991, p.137)

> *'When a designer makes sense of a situation he perceives to be unique he sees it as something already present in his repertoire. To see this site as that one is not to subsume the first under a familiar category or rule. It is rather to see the unfamiliar, unique situation as both familiar to and different from the familiar one, without first being able to say similar or different with respect to what. The familiar situation functions as a precedent, or a metaphor .....an exemplar for the unfamiliar one.'* (Schön, 1991, p.138)

Schön says, *'new problem solving behaviour is a variation on the old.'* (p.139) He also identifies that the unique role of the designer in teams is to *'have a feels for problems that do not fit existing rules.'* (p.140)

On-the-spot Experiment

Understanding what constitutes good and bad fit is proposed by Schön as a type of experiment.

> *'Chris Alexander, in his Notes Towards a Synthesis of Form considers the knowing involved in design. He believes that we can often recognise and correct the "bad fit" of a form to its context, but that we usually cannot describe the rules by which we find a bad or recognise the correct form to be good.'* (Schön, 1991, p.52)

Fit can be tested through repetitions and adjustments: 'professional practice also includes an element of repetition. A professional practitioner is a specialist who encounters certain types of situation again and again,' (p.60) A practitioner's experiment is different to that of a researcher and involves action to see what happens, based on the research question *what if?* (p.145) For landscape architects visualisation is the *'exploratory experiment'* that allows us to test scenarios of change.

> *'When a practitioner reflects-in-action in a case he perceives as unique, paying attention to phenomena and surfacing his intuitive understanding of them, his experimenting is at once exploratory, move testing, and hypothesis testing. The three functions are fulfilled by the very same actions'* (Schön, 1991, p.147)

Bryan Lawson (Lawson, 2007, p.26) stresses the importance of the *'design drawing'*: '*done by the designer not to communicate with others but rather as part of the very thinking process itself, which we call design.'*

Reaching satisfaction

Schön describes the designer as being in a *transactional relationship*, with, for the landscape architect, the landscape. One informs the other and the inquirer: *'is in the situation that he seeks to understand ….. he understands the situation by trying to change it'.* He stops experimenting when the change is on the whole *satisfactory: the practitioner experiments between the realms of intention and consequence until a point of satisfaction is reached.* (Schön, 1991, p.152)

Virtual worlds

Designers operate at a stage removed from implementation, which allows tthem to *perform artistically,* and *experiment rigorously.* Schön refers to *'the graphic world of the sketch pad'* as a medium for reflection-in-action, where scenarios can be "drawn and talked" in *'spatial action language'.* (p.157)

> *'The act of drawing can be rapid and spontaneous, but the residual traces are stable. The designer can examine them at leisure.*
> *Moves that would be costly in the real world can be tried at little or no risk in the world of the drawing.*
> *Drawing functions as a context for experiment precisely because it allows the designer to eliminate features of the real world situation which might confound or disrupt his experiments.'* (Schön , 1991 pp.157-158)

Bryan Lawson refers to work by Jones as distinguishing between the vernacular craftsman and the designer on the basis of this *virtual* role and value of drawing, which *'liberates the designer's creative imagination in a quite revolutionary way'*:

> *'Parts of the proposed solution can be adjusted and the implications immediately investigated without incurring the time and cost of constructing the final product. The process of drawing and redrawing could continue until all the problems the designer could see were resolved. This vastly greater "perceptual span" as Jones called it, enables designers to make much more fundamental changes and innovations than would ever have been possible in the vernacular process….'* (Jones,1970, cited in Lawson, p.26)

However, Lawson also cautions that a drawing can only ever be a model of appearance, and tending to be highly codified, can mislead. (p.27)

Collaboration

Schön refers to the *'language of designing'*, where talking and the parallel process of drawing what is being described are *'parallel ways of designing'*. (p.80) He recognises the differences between professionals in the media, languages, repertoires, theories, values, and professional *role frames* that they bring to their practice, as being a potential barriers to collaboration. (p.270) Schön also defines *'collective reflection-in-action'*, and *'reciprocal reflection-in-action'*, useful concepts in considering multi-disciplinary and collaborative working. He refers to Thomas Kuhn's work (1977) exploring *'appreciative system frames'*, and distinguishes between *'persuasion'* and *'conversation'*, as effective routes to consensus.

> *'Within a process of inquiry, evaluations of methods and products may be objective in the sense that they are interdependent of mere opinion. Across processes of inquiry, differences in evaluation may not be objectively resolvable. Resolution of such differences depends on the little understood ability of inquirers to enter into one another's appreciative systems and to make reciprocal translations from one to the other.'* (Schön, 1991, p.273)

Imaging **and design:** ***eidetic images***

James Corner recognises difficulties with respect to the mediums of drawing and landscape as mediated by landscape architects. With respect to the relationship between drawings and the production of built landscapes he (p.245) identifies three difficulties:

- One: that designer's are indirect / detatched / remote from the landscape medium.

'Although landscapists ultimately make places out of plants, earth, water, stone, and light, they are caught at a peculiar distance from these same elements, working instead with a completely different medium, an intermediary and translatory medium that we call drawing. Creative access to the actual landscape is therefore remote and indirect, masked by a two-dimensional screen.' (Corner, 1992, p.245)

- Two: there is an incongruity of drawings compared to the subject: the abstractness of the drawing compared to actual landscape experience.

'landscape spatiality', 'landscape temporality', and *'landscape materiality'* are three phenomena that evade ready representation in art forms, and including landscape architectural drawings. (1992, p.246)

'....the full plenitude of landscape spatial experience cannot be represented without alteration or reduction: it can neither be drawn, for it is not in essence pictorial, nor can it be qualtifiedd, without gross simplification, for it is not all measurable....' (Corner, 1992, p.247)

'There is a duration of experience, a serialistic and unfolding flow of befores and afters. Just as a landscape cannot spatially be reduced to a single point of view, it cannot be frozen as a single moment in time.' (Corner, 1992, p.249)

'Today's fascination for the pictorial, make it all the more important to recall how the greater part of landscape experience belongs to the sensations of the tactile, the poetics of material and touch.' (Corner, 1992. p.250)

- Three the drawing has a generative role.

With respect to this latter point, Corner distinguishes between *'imaging'* and *'picturing'*, and relates the designer's activity to the former.

'....imaging always exercises agency, actively unfolding, generating, and actualizing emergent realities. While theorists and historians focus on the object or idea, designers focus on the actual activities of creativity with the "doing" and with the often bewildering effects of bodying forth things

> *neither foreseen nor predetermined. The question, then, concerns not so much the kinds of images designers should work with but rather what kinds of imaging activities should be developed and advanced.'* (Corner, 1999, p.160)

Corner refers to these as eidetic images: *'Such eidetic images are a fundamental stimulus to creativity and invention; they do not represent the reality of an idea but rather inaugurate its possibility.'* See also later section on Generating form and *landscape-fit*. (1999, p.162) He gives a precise definition:

> *'By eidetic I mean that which pertains to the visual formation of ideas, or to reciprocity between image and idea. That drawing is fundamentally about making images suggests that it might actually generate and transform ideas for the percipient rather than simply representing them.'* (Corner, 1992, p.244)

Heft (2010) proposes Gibson's *Affordances* as a concept that allows a framework for explicit thinking within the design process, and focuses attention on function. Affordances are possibilities for action (opportunities) and constraints on action (sensitivities): and align directly with Corner's inauguration of *possibilities*. The principles, as set out in previously in The experience and perception of the landscape.

> *'If our aim is to offer a description of the functional possibilities of an environment, such an account must necessarily be offered relative to some individual organism. That is, a functional description requires a relational stance.'* (Heft, 2010, p.17)

The *'action-based* approach' put forwards by Heft (p.29) *'highlights the properties of environments that are engaged by users.'* Heft recommends the approaches of theorists who take an experiential stance, such as Gordon Cullen (1961). (p.28) Specifically he calls into question the use of an *image-based* approach to design, on the grounds that the *'spectator stance'* and the *'active perceiver stance'* are fundamentally different ways of perceiving. (p.27)

However, Laurie Olin links the act of drawing with participation, through his experience as in the designer's role: *'drawing is a way of thinking while acting, or of thinking through acting.'* (Olin in Treib, 2008, p.82)

The sketch and drawing as an analytical tool / technique

Walter Hood describes the sketch, or *'gesture drawing'*, as a *'consciousness of an act of creation':*

> *'....the sketch records the seed of an idea and the beginning of a design ..... the gesture drawing attempts to describe both physical relationships and qualitative information. Formal ideas such as rhythm, balance, repetition, describe order, while dark lines, light lines, colour and tone focus the sketch.'* (Hood in Treib, 2008, p.57)

And of the field sketch:

> *'As a vital part of any landscape architect's education, the field sketch record works like others through careful observation and analysis..... The field sketch can be quick and crude or laboriously detailed. Sitting and observing supports our study, with every line and detail itself a subject of study. Every glance and mark on the paper etch the subject viewed within our memeory. The attention needed to accurately depict the subject offers the designer the opportunity to mentally reconstruct the subject..... ...the sketches become part of the designer's personal casting'* a repertoire of details, spatial relationships and compositions. (Hood in Treib, 2008, pp.58-59)

However, as set out in Chapter 1, the use of the sketch as an analytical tool of analysis and assessment is no longer a core activity in professional practice. The role of drawing in design has also come under recent question. The role of drawing in engendering understanding of a things *essence and presence*, through capturing and expressing its *'awful lines'* and *'leading lines'* (ingold,

2007a, p.129) were ideas developed by Ruskin, who stated that the drawing should show the *'knowing where things are going':*

> *'Your dunce thinks they are standing still, and draws them all fixed; your wise man sees the change or changing in them and draws them so, - the animal in its motion, the tree in its growth, the cloud in its course, the mountain in its wearing away. Try always whenever you look at a form, to see the lines in it which have had power over its past fate and will have power over its futurity. These are its "awful" lines; see that you seize on these' whatever else you miss.'* (Ruskin,1904, quoted in Ingold, 2007a, p.130)

This is particularly pertinent to analytical drawings of the landscape. Ruskin is alluding to a type of observation that should underpin drawing that is not just about the surface appearance, but attempts to *explain* it. It selects out essential information and makes objects explicit, and in doing so is interpretive. In this way understanding of significance grows through the actual drawing process.

Drawing and thinking

Marc Treib introduces Drawing/Thinking: Confronting an Electronic Age with the proposition that:*'...many educators and design professionals still believe there are direct links among and between the practices of thinking, observation, and drawing'*. inspite of *'the technical supports'* and in particular the computer, and goes on to explore the connection between drawing and thinking, through his own work and the ideas of others (Treib, 2008a, p.viii). Four key ideas unify the arguments (p.x):

- Drawing demands more careful scrutiny.
- Digital media affects how we think and therefore how we design.
- Drawing demands consideration and thereby affects the hand eye brain relationship.
- Drawing demands time, attention, and a focused acknowledgement of the particular place.

'....rather than merely constituting a physical trace, drawing implies composition and projection of an idea, raw or ripe, for realisation.' (p.14)

Catherine Dee sees drawing in landscape design as a practice to *'change the way we see, understand, and therefore the way we make and alter landscapes.'* (Dee, 2008, p.61) She advocates a critical approach to the use of medium *'concerned with the quality of an idea and not its visual characteristic.'*

The illustrator Chistopher Gubbs outlines how drawing aids iterations of ideas and testing of solutions:

> *'.... A recurring, seemingly meaningless, graphic notation may bring a subconscious notion to the surface. A quick sketch can expose the fault of a favoured idea, and another sketch – just as quickly – can suggest a more valid solution. The repeated application of drawing to the thinking through of an idea brings fruition to the process.'* (Gubbs in Treib, 2008, p.161)

Chip Sullivan sets drawing out as a means to link the eye and the hand, and explains how drawing heightens perception and is analytical:

> *'.... Drawing is the most direct method of recording one's observations. The very act of recording something increases ones perception of it, and heightened awareness is crucial to learning. Analytical drawing in particular is a process of observation that reveals a way of thinking. To analyse is to take something apart, figure out what it means, and put it back together again.....*
> *Analytical drawings are "thinking drawings" in that they can explain.... how a space is conceived; as such they reveal the consciousness of a place. "Thinking drawings" illuminate the creative process behind an object or space and render the invisible visible by revealing relationships that may not be obvious to a viewer upon first inspection. They are learning tools that aid in the discovery of underlying spatial relationships, patterns, proportions, and systems.' (Sullivan in Treib, 2008b, pp.63-64)*

In calling for the use of eidetic imagery, James Corner discusses drawing with respect to landscape architecture, (Corner, 1992). Corner contrasts more purely

analytical drawing with an approach that uses mechanisms of analogy and metaphor. He calls for a broadening of approach in terms of landscape design, in both speculative drawings and presentational ones. See Chapter 1, Definitions also the later section, Landscape representation. (Corner, 1992, p.275)

Analysing spatial structure and character

There are various theoretical models and systems that analyse the design process and support designers by providing intellectual approaches into and through design problems. Spatial analysis is recognised as a means to structure the experiential functions that a landscape or townscape provide. Up until work by Simon Bell (2004), first published in the 1990s, and Catherine Dee (2001), such models of spatial organisation have tended to focus on assessment and planning in architectural or urban contexts. Ching's 1940s classic, Architecture: Form, Space & Order, (1979) focuses on the scale of the building and immediate settings. Kevin Lynch's Image of a City (1960) translated this type of approach to the city scale. He developed a vocabulary of spatial features to analyse a city, all of which could be applied within a hierarchical scale. The key features are, p*ath, edge, node, district,* and *landmark* (major and minor). Gordon Cullen also used experiential concepts in his work and notably used three-dimensional sketches and photographs, as well as plans, to describe and present his ideas. Cullen's sketches hold an iconic status in landscape architectural practice and education, which although arguably dated in style do retain a freshness of observation, artistry, and humour that isn't superseded. Significantly he brought the concept of *Serial Vision,* (1990, p.17-20) to life as demonstration of an experiential idea and field sketching is a powerful way to capture movement through spaces.

Dee's work (2001) develops the concept of *Landscape Fabric* (pp.5-30), which: represents *'whole and integrated landscapes at various scales';* takes an

overview of various theories, such as Jay Appleton's *Prospect and Refuge Theory* (cited in Dee, p.19) and principles, such as Cullen's *Mystery;* and integrates structural features (adapted from Lynch) of *spaces, paths, edges, thresholds,* and *foci* within design. She extends the scope of spatial structures from Lynch's model in several significant ways. She takes Lynch's more or less *diagrammatic* conceptual framework, and integrates the materials of concern to landscape architects: topography, vegetation, buildings and water. Her work also embraces a wider landscape to detail scales, and the hierarchies of features of that structure that exist. In presenting the spatial analysis, Dee uses a freehand combination of sketches, diagrams, plans and sections, depicting both real places and abstract ideas. The use of a consistent graphic style makes the communication of ideas seamless across these diverse representations, and the use of annotations emphasises analytical intent, rather than decorative; although they are appealing artistically as well.

Katherine Southwell (2004) reviews these concepts of space (pp.38-62) and identifies a range of limitations, a key problem being the link between *conceptualisation and imageability*: (p.62) that is, that our ideas are necessarily limited by how we can image them. However, she credits the spatial models as being both *'useful'* and *'useable',* as both explanatory tools, and frameworks for analysis that designers can integrate within their process. Essentially models enable designers to *'make sense of very complex systems'* (p.95). Southwell introduces the visual tools at a designer's disposal:

> *'The available visual tools within the landscape designer's repertoire are mainly 2-dimensional and 3-dimensional, although Cullen and Lynch provide a means of capturing the fourth dimension of movement through space. Whether sketching or photographindg a spatial sequence it is a way of seeing. Drawing is the key analytical tool since it enables the designer to <u>really</u> see. Different forms of drawing, whether mapping, sketching, or diagramming help the designer in a "seeing through doing" approach.'* (p.76)

Further, Southwell quotes Chip Sullivan's description of drawing as a *'seeing tool'* (p.79), but goes on to set out the limitations of the designer's tools when it comes to conceptualising the landscape from the *users perspective*, the aim of her research. Within her own approach, sketches and photographs are used throughout in case studies, the sketch elucidating the salient visual features of the photographs *whole image.* She also draws on the sketchbooks of others to demonstrate their design process, and for example such as Laurie Olin's *'what if'* scenarios testing design options. (p.278)

Kevin Thwaites and Ian Simkins (2007) develop the concept of an *experiential landscape*, based on the idea that *'human experience has spatial dimensions'*, and recognising the needs to *'find ways to understand the experiential character of outdoor settings through interpretation of spatial organisation'* (2007, p.36) and how *'categories of human experience can be interpreted spatially'.* (p.36) Like Southwell (2004) they refer to the usefulness of models developed by Kevin Lynch (1960) and others to *'link human experience with spatial expression'.* They also refer to the recognition by Stephen and Rachel Kaplan (Kaplan and Kaplan, 1998) of the value of Christopher Alexander's Pattern Language (Alexander and others, 1977), and the use of the work as the basis of a framework to make environmental psychological research accessible to designers. (Thwaites and Simkins, 2007, p.36)

Fundamentally Thwaites and Simkins see the experiential landscape approach as one where social relevance is stressed over appearance. (p.37) They use Grounded Theory as the research approach, with qualitative methods of data collection, and show the resultant correlations between human experience and spatial character as a series of layered maps. Photographs are used to portray the three dimensional qualities of spaces and these make some interesting observations regarding, for example, the perceptions of local people compared to specialists. (p.95). However, the sketch has disappeared from the language of

the design theorists. The photographic representation does not make the same conceptual bridge between reality and abstract ideas, and is less engaging expressively.

Serial vision

We experience landscapes by looking and moving through them. The latter develops a series of impressions, and the concept of serial vision has been of interest to design theorists, who developed the concept of serial vision, as part of models of spatial structure, are Jay Appleyard (Appleyard and others, 1964), Gordon Cullen (1990), and Kevin Lynch (1960). The ideas are now embedded in landscape architectural teachings and practice and have been re-articulated in Catherine Dee's comprehensive spatial morphology on the use and experience of landscapes, Form and Fabric in Landscape Architecture. (Dee, 2001, pp.51,83, 85,171)

> *'Landscapes are places of movement. Therefore a central consideration for landscape architects is to consider the sequential experience of moving from one space to another.'* (Dee, 2001, p.151)

The sequences of movement, moments, mood, juxtaposition, contrast, and *unfolded* landscapes, provoke a different perception of places, and in particular the sense of identity they have and how this is influenced by the context they are in. In considering the potential for serially sequenced images / pictorial frames in describing space, its structure and experience, Charles Waldheim refers to the modern scholarship by Sylvia Lavin. She provides an account of how the modernist category of space arose directly from the sequence of pictorial frames, associated with late nineteenth century landscapes[4]. In doing this he

[4] Charles Waldheim, Aerial Representation and the Recovery of Landscape, Recovering Landscapes, essays in contemporary landscape architecture, Editor James Corner, Princeton Architectural Press, 1999. Note 20, p. 137.

questions the assumed gap between modernist and nineteenth century traditions:

> *'It is possible to show the co-dependency of spatial issues with those of the picturing, framing, and composition. In fact, a more recent argument is that modern formulation of space can be seen to have developed directly out of the nineteenth century use of serially sequenced pictorial frames, a fundamental component of landscape perception and representation.'* (Waldheim in Corner, 1999, p128)

Generating form and *landscape-fit*

The idea of *landscape-fit* refers to the harmonious visual relationship between a feature of line, pattern, shape, or form within its landscape context. It is a notion commonly used by landscape architects. However, as articulated by Schön, (1991, p.52) it is a quality often readily recognised but hard to know why; as well as being exclaimed in its contrary: 'That doesn't fit in!'

Christopher Alexander fused approaches from mathematics and architecture to try to find a rational design process that achieved *fit* between form and purpose. (Alexander [1964] quoted in Jencks and Kropf, 1997, p.20) Alexander's *fit* is also rooted in the function required of the design problem. In his search for an explanation of the sources of *good fit* he looks to the self-adjusting building processes of *'unselfconscious cultures',* (p.221) by which he means simple, or primitive.

> *'The organisation of any physical object is hierarchical. .....*
> *Designers try to shape the components of new structures. The search for the right components, and the right way to build the form up from these components, is the greatest physical challenge faced by the designer. .....if the hierarchical program is intelligently use, it offers the key to this very basic problem – and will actually point to the major physical components of which the form should consist.'* (Alexander, quoted in Jencks and Kropf, 1997, p.222)

Alexander goes on to see components as patterns and units, the latter making a component distinct from it surroundings and the former integrating it.

> *'It is the culmination of the designers task to make every diagram both a pattern and a unit. As a unit it will fit into the hierarchy of larger components that fall above it: as a pattern it will specify the hierarchy of smaller components which it itself is made of.'* (Alexander, 1964, quoted in Jencks and Kropf, 1997, p.223)

Landscape-fit may be articulated as design principles, where large areas are involved and general guidance is needed, or design options, for one off situations. Simon Bell proposes a series of design principles, which are based around a three-tier structure: *basic elements, variables* and *organization.*

> *'It is the combination of these ..... which describes the patterns to be found in the existing landscape or produces new visual designs or new patterns. A good design is one where the chosen variables and modes of organization are positive and harmonious. A bad design is where they are negative and disharmonious, irrespective of personal taste or preference.'* (Bell, 2001, p.14)

Developing design principles and options that respond intimately to the qualities of a place is in particularly important where design objectives are to, restore, conserve, or enhance, and arguably in many other situations also. This is the case with protected landscapes, such as National Parks, National Scenic Areas, and Areas of Outstanding Natural Beauty. Policies in the National Park Management Plans, and guidance in Landscape Character Assessments will set out such conservation and enhancement requirements. Detailed design guidance may go further in expanding on how *landscape-fit* can be best achieved. See Inset box: guiding principles for protected landscapes.

Karthryn Moore describes how designer's build up design vocabularies with practise, recognising *'that generating form is not an unfathomable or mysterious*

rite, but is reliant on acquired know how, artistic sensibility and technical expertise.' (2010, p.155)

Towards principles to guide design for protected landscapes

> *'Good design often seems to have only a very few major dominating ideas which structure the scheme and around which the minor considerations are organised. Sometimes they can be reduced to only one main idea known to designers by many names but most often called the concept'* (Lawson, 2006, p.189)

Where topographic structure and / or cultural patterns tend to be the organising landscape elements, and scenery is highly valued, the main idea could be considered to be *landscape-fit*. The following propose some primary principles for siting and design in areas, where landscape conservation and enhancement are the aims.

Appearance:

- New landscape features should be integrated within existing landscape patterns: introductions should either follow existing responses to topography and land use patterns, or create a new pattern that is responsive.
- Where new aesthetic vocabularies are introduced, they should show a clear relationship to existing visual qualities: avoid visual tension and conflicts.
- Within visual hierarchies, introductions should respect and be less dominant than existing patterns and force lines: discordant figure-ground relationships should be avoided.

Experience:

- Diverse landscape experiences should be maintained: conserve and enhance local distinctiveness.
- Conserve, enhance, and restore features and patterns that underpin scenic qualities: avoid introductions that erode scenic integrity.
- Maintain and enhance diverse opportunities to, access, view, and move through landscapes.
- Maintain and further develop spatial diversity across all landscape scales: as determined by enclosure and exposure.
- Conserve tranquillity, wildness, and unspoilt qualities: as supported by presences and absences, and critical distance thresholds.

Inset box 7.1: Guiding principles: protected landscapes

Forest design

The principle of using the *view perspective* as the basic design tool is established in forest design. The design is mapped only following resolution in relation to the *view perspective.* Forest Design Plan visualisations are standardised and have been developed as tools to help specialists review proposals on site. They are not intended to help generate designs, although visual perspectives are part of the forest design process:

> *'Except for areas on very flat or plateau topography, where no perspective views are possible, all sketch design should be prepared in perspective, using overlays and all the photographs. Once the sketches have been adequately developed the design should be mapped… a series of sketches from the main viewpoints for both* (felling design and restock design) *and possibly a time sequence showing how the landscape will develop, perhaps for a selection of major views'* (FCS, 2007)

The Forestry Commission also developed a landform analysis, known as *visual forces* that can be applied to plan or perspective, which informs their designs. Development of the Commission's standardised guidelines and approach to forest design is grounded in a tradition of field sketching. Dame Sylvia Crowe, the Forestry Commission landscape architect 1963 – 1976, made sketches on site as direct communication to foresters. Nicholas Shepherd, one of the Forestry Commission's landscape architects, sets out her legacy:

> *'In designing forests today, both in practice and in training, the team still use her* (Dame Sylvia Crowe) *principles based on the importance of shape, scale, diversity, visual unity and sense of place, but now employ advanced computer visualisation techniques in place of the elegant, but somewhat imprecise, sketches that Dame Sylvia produced. These principles are incorporated into the Forest Landscape Design Guidelines, which is a contributory document to the UK Forestry Standard.'* (Stevens, 2006)

Today, the Commission's landscape architects are involved directly with the design of forests in sensitive landscapes and on request for difficult landscape

cases. However, they continue to develop the standardised approach to design principles that is implemented directly by the Forest Design Planners.

> Shawn T. Kelly: *'I believe that sketching is critical for designers. The need will always be there for people to capture, analyse, and refine what they see. Photos are flat, even when done well, and that dimensionality reads in sketches. Layers of content are available for later distillation when a sketch is done by a designer.'* (ASLA, 2009, p.92-93)

Figure ground

The notion of figure and ground relates to how we perceive shapes and patterns. Either with regard to analysing how existing landscape pattern is congruent or otherwise with topography, or in terms of introducing new patterns and shapes, the following are relevant principles with regard to establishing good *landscape-fit:*

> *Unity*
> - *Natural landscapes are normally well unified within themselves since the visual patterns relate to natural processes.*
> - *Careless introduction of man-made patterns can disrupt the unity inherent in natural landscapes.* (Bell, 2004, p.92)
>
> *Figure and ground*
> - *Some forms or objects stand out as features or figures against a background.*
> - *Convex forms usually stand out as figures.*
> - *The basic rule: if a figure is important then it should stand out and the background should not compete with it; if the continuity of texture and pattern of the background is important then individual elements should not stand out as figures.* (pp.125-126)

The figure on a background is *'the most basic unit of visual experience',* for Gestalt theory: gestalt being a function of the relationships of its parts that make up a whole. (Tilley, 2004, p.4).

> *'Figure can always become ground or vice versa, depending on how and what we perceive.'* (p.221)

Tilley cites Rubin as having done the main work on figure-ground relationships:

> *'Findings of Rubin (1915):*
> 1. *When two fields have a common border, it is the figure which seems to have the shape while ground does not.*
> 2. *The ground seems to extend beyond the figure.*
> 3. *The figure appears to be object like (even though it has an abstract shape) while the ground does not.*
> 4. *The colour of the figure seems more substantial and solid than that of the ground.*
> 5. *The ground tends to be perceived as further away and the figure nearer the observer even though both are at the same distance.*
> 6. *The figure is more dominant and impressive and tends to be remembered more easily.*
> 7. *The common border between figure and ground is called a contour, and the contour appears to be a property of the figures.'*
>
> (Rubins,1915, cited in Tilley, 2004, p.13)

These understandings are very relevant to landscape aesthetics, where it is the presence of landscape features and the arrangements and combination of features into patterns that constitute landscape character and visual quality. The legibility of dominant features or *figures,* as opposed to patterns, and how we can articulate that is fundamental to how we describe (visually) and analyse landscapes. The at times ambiguous register of figure, as opposed to ground, and more or less discordant *fit* of a land use *figure* against that of either landform, or another dominant pattern, are perceptions we readily *calculate.* Schön acknowledges this ability to appreciate *fit,* but says that practitioners can't explain it so readily. (Schön, 1991, pp.,52,60)

Landscape-fit and the visual perception of *figure-ground* seems to be a phenomena that can be shown and demonstrated more easily than explained. Betty Edwards (2001, pp.116-125) and other practitioners who teach drawing articulate the principles of *Gestalt* and the ideas of *figure-ground* through the terms *positive* and *negative* space. Through drawing, landscapes can well be

understood in their whole and parts: the inter-relationship of shapes, and their *fit*. The ability for someone to *toggle* between positive and negative spaces while drawing is recognised as an important developmental stage. Recognising shape seems so instinctual and immediate as to be beyond the comprehension of *why* it appears appropriate or otherwise. However, through drawing these processes of recognition and fit are made explicit.

The structure of Place: a phenomenological approach

Christian Norberg-Schultzs seminal work on *Place*, Genius Loci (1980) sets out a structure and system for describing *place,* which extends beyond spatial analysis to *'a qualitative, phenomenological understanding of architecture'.* (p. 5) Significantly in relation to *landscape fit,* Norberg-Schultz's model relates natural, or topographical spatial structure, to architectural, or built, structures. He recognises *'the task of the architect is to create meaningful places'*, (p.5) where *place* is described in terms of *'landscape'* and *'settlement'* and analysed by means of the categories of *'space'* and *'character'*. (p.11) Norberg-Schultz also refers to Lynch's model and concepts of *nodes, paths, edges, districts* and *landmarks*, as being useful to consider the spatial aspects and to understand how people *orientate* in space. (p.19,20) However, he expands on this understanding to take in the character, or atmosphere of places, which includes materials, defining characteristics, temporality, and motifs.

For landscape architects, and in particular with respect to landscape character assessment, Norberg-Schultz's idea can be interpreted to link landform, as the *topological* order, to settlement and land use patterns, as the *geometrical* order. As Norberg-Schultz appreciates it, *genius loci* emerges where there is a strong correlation between the natural topography of a place, and the architectural response to that. The *'structural correspondence',* occurs as the human response is to *'visualise and complement'* natural structures, and through

architecture to *'symbolise'* the relationship. (p.17) This *correspondence* aligns with the notion of *landscape fit.*

Norberg-Schultz also incorporates several other concepts valuable to landscape design, and explored by other theorists, such as *figure ground,* (p.12), and *'environmental levels',* or landscape scales. (p.16)

Intuitive leaps

The notion of *landscape-fit* is often one of immediate recognition, and 'knowing instinctively when something is right'. Richard Sennett seeks to demystify intuition:

> *'It can be crafted. Tools used in certain ways organize this imaginative experience and with productive results. Both limited and all-purpose instruments can enable us to take the imaginative leaps necessary to repair material reality or guide us towards what we sense is an unknown reality latent with possibility.'* (Sennett, 2008, p.213)

Sennett proposes four stages to *intuitive leaps.*

- Reformatting: an enlarged frame of reference for the mind, including potential, the unforeseen, and unexpected.
- Establishing adjacency: bringing two unlike domains together and considering what they might, but don't yet, share. This is a work of the imagination.
- Surprise: *'the dredging up of tacit knowledge'* (Sennett, 2008, p.211) to compare these two contrasting areas, and being surprised that something can be other than assumed.
- Gravity: recognition that *'a leap does not defy gravity'* and that importing a procedure or technology to help solve or progress a solution to a problem, tends to introduce its own attendant problems.

Sennett relates the stages of the intuitive leap to the *'what if?'* nature of inductive reasoning, rather than the *'then'* of deductive reasoning. Bryan Lawson also sets out a popular five-stage model of creativity (Lawson, 2007, pp148-150) and gives an account of the creative process. Stages of *first insight, preparation, incubation, illumination, and verification* are set out, but these dip in and out of more and less conscious application, such that the sudden emergence of ideas has a context of more deliberate hard work.

Laurie Olin recognises how drawing can tap the hidden / subconscious thoughts:

> *Many things happen when drawing without any accord to a prior plan or preconceived visual result. As soon as one puts several marks down on the page the brain reacts to them, from a lifetime of visual associations, feelings about composition, balance and movement, unexpected thoughts occur about where or how to make the next ones. Drawings often develop a "life of their own", we say. Some would ascribe this to intuition, which in this case is actually thinking so rapidly that we don't perceive it'* (Olin in Treib, 2008, p.85)

The action of drawing stimulates reciprocation / feedback loop / reflexivity between the mind, and the continued action of drawing.

Landscape representation

Visual communications

Thorbjorn Andersson introduces the need for landscape architects (and architects) to work with:

> *'graphic vehicles with which to mediate their ideas ....although talented in solving spatial and formal problems, a landscape architect does not function well professionally if he or she fails to develop graphic models that communicate these ideas precisely and persuasively.'* (Andersson in Treib, 2008, p.75)

He states that it is the communicative need that drives *'effective representations'* (In Treib, 2008, p.75), and recognises an increasing need with degree of complexity of the project. Factors such as the number of participantsin decsion making, the amount of detail in the program, and the level of trust in the designer, all influencing the type and number of images.

Representing landscapes visually has been important for landscape architects as a communication to self and to others, collaborators, clients and users of their designs. Practitioners' working sketches and design drawings are often the basis of illustrations of schemes and ideas, with more or less amendments and formalisation. Catherine Dee recognises this but introduces the idea of *critical visual studies,* where imagery is used to investigate and to communicate (2004, p.14), in areas of study, such as *'social, philosophical and cultural dimensions of landscape'*, where written rather than visual communication dominate. Amongst other applications *'art as enquiry'* (p.20) is suggested as a means to tap and express experiential aspects of the landscape, and the link between *'inside thought and outside making'* (p.26) is made.

Internal dialogues

Sir Geoffrey Jellicoe employed sketches to tap in to the subconscious. (1991, pp.124-128) Inspired by Paul Klee and influenced by Carl Jung, Jellicoe experimented by superimposing shapes into his designs that suggested other forms, such as animals *'a message from one subconscious to another'.* (p.124) The use of metaphor and association emerges naturally when drawing, as attention focuses on shapes and their inter-relationships. As demonstrated by Jellicoe in his work, the hand drawn plans, the layering of forms could be described as *finding fit* with the different layers of the subconscious. He writes of his designs at The Moody Historical Gardens: *'Beneath the visible world of the gardens will be at least three levels of the subconscious....'* (p.128) Here, Jellicoe is *crafting intuition* in just such a way as discussed by Sennett. (2008, p.213) and it clearly arises through an integration of visualisation and design, facilitated by the hand drawn graphic.

See also the later Landscape drawing, analysis and design, which looks at the dialogue designers develop in solving problems through drawing, and the role of drawing in stimulating intuition.

Working with others: drawing and participation

The landscape architect and designer, Peter Hutchinson, sees sketches as a design tool, the special importance of overviews, and the role of visuals in communicating design options, both as internal dialogue and to others:

> *'I particularly enjoy the 3D sketches, especially bird's eye / aerial perspectives. They are very revealing, helping me to resolve issues. .... Drawings help me to explore options and develop ideas while visually explaining the design to the client, contractor, student, or whoever needs to be informed.'* (Hutchinson 2007, p.18)

In spite of broadening possibilities of visualisation, many landscape architects, particularly trained and experienced before the advent of computer aided design, still value the traditional ways of working. Hutchinson makes freehand drawings in pen and ink on *butter* and layout paper:

> *'It is thin and translucent, doesn't crease like tracing paper and is useful as an overlay – photographs architects drawings or other material can be used as an underlay. Rather like Humphrey Repton and his Red Books. I use "before and after" sketches to sell my products.'* (Hutchinson, 2007, p.18)

Repton's use of the device of *'overlays'* (Daniels in Treib, 2008, p.43), whilst simple, were an effective and low-tech mechanical *graphic innovation* (see Chapter 1) has stood the test of time well, as well as the principle being adapted to more elaborate photomontage in LVIAs. The *before* and *after* options can be readily understood, and address the dimensions of landscape most problematic for people to grasp: spatial and temporal.

In *'No Representation Without Representation'* (Thompson Hester in Treib, 2008, pp.96-112) Randolph Thompson Hester Jr extends the meaning of representing the landscape to encompass the representation of others. This is particularly relevant given the new responsibilities under the European Landscape Convention to involve people in decisions about landscapes, as well as the current political directions under "Localism" and "The Big Society".

He considers how community designers employ the special drawing processes *"drawing on your feet"* and *"drawing upside down"*, (In Treib, 2008, p.97) and promotes using drawing as a central method of communication in participation (p.99):

- Linking the careful observation of drawing with behavioural observations of how people use spaces.

- Drawing to teach users *'the language of landscape'* to help them co-author designs.
- Drawing as a *'common language'* to aid collaboration, transaction, and build up empathy.

> *'Sketching the words of another person requires aggressive listening. The designer sketches while listening, trying to give form to the idea the citizen expresses verbally. The resulting sketch tests whether two or more people are visualising the same idea, and as such may become the medium of exchange….*
>
> *Sketching is convenient form for communicating between two people. Although equally useful, it is far more difficult to use sketches with large groups of citizens'* (Thompson Hester in Treib, 2008, p.100)

Thompson Hester notes benefits to include the transparency of design decisions and creative exchanges. He suggests the use of standard and group graphic techniques; locational mapping, plan drawing, diagrams, quick sketches, before and after overlays, to *'create a common language for complex publics to nurture and inform civic debate, and to include the excluded'*, and *'to understand the subject as the public perceives and values it.'* (Thompson Hester in Treib, 2008, p.110) He also promotes the use of on-site sketching workshops:

> *'Teaching citizens elementary professional spatial drawing skills can produce significant public design benefits. All citizens can map and draw, some quite well.*
>
> *Citizens become more effective partners in designing landscapes when they are deeply rather than superficially engaged in the problem solving. One of the most critical aspects of landscape architecture is achieving gestalt, the essence of a place that cannot be derived by adding up the various parts.'* (Thompson Hester in Treib, 2008, pp. 105-107)

Interpretation, a *philosophical approach*

James Corner refers to art critics and historians, such as E.H. Gombrich, Jonathan Crary, Kenneth Clark, and Hans-Georg Gadamer in stating the significance of any representational method, over any actual reality:

> *'Description and projection entail taking a particular point of view – both spatial and rhetorical – that not only reflects a given reality but is also productive of one. .... the inseperable assumption of a viewpoint in representation is never neutral or without agency and effect; representation provides neither a mirror reflection of things nor a simple and objective inventory. Instead representations are projections, renderings of reality that are drawn from and thrown on to the world. Moreover, the history of painting, literature, and cartography has shown us that a mirror copy of the world – or a description that is so precise and truthful as to be identical to the object it describes – is simply an impossible illusion and that the ontological presence of the representation itself is unavoidable.'* (Corner, MacLean, 1996, p.18)

With documentary fine art, the interpretive direction of an image to serve specific communication purpose has been an accepted and traditional role. An example of an interpretive overview is the 1827 painting *Topography of Niagara* by George Catlin, whereby, before actual aerial views were available, he faithfully represented the vertical view from a model that he had made. However, *'....he was not able to resist exaggerating the perspective of the Falls themselves; they are drawn from another viewpoint, far distant from the center, so that the mighty torrent of cascading water can be seen.'* (Newall, 1969, p.12)

Landscape representation

It is a useful reminder to introduce this section with the fundamental issue that perception of viewing a representation evokes a different response in the viewer to the direct experience of the landscape. Heft refers to the cultural theorist Susan Sontag, who compares the perception of viewing photographs with first-hand experience:

> *'[P]hotographic images tend to subtract feeling from something we experience first-hand and the feelings they arouse, are largely, not those we have in real life.'* (Sontag, 1977, quoted in Heft, 2010, p.28)

James Corner has considered landscape representation extensively and defines three types of landscape drawing (Corner, 1992, p.251):

- Projection: direct analogies between drawing and construction, with plans, elevations, sections, and axonometrics.
- Notation: identifying parts of a schema enabling reproduction, enactment, performance, such as measured plans, sections, elevations, written specifications, and employing a system of unambiguous symbols to specify the essential properties. (1992, p.255)
- Representation: aim to represent a given landscape, eliciting *'the same experiential effects but in a different medium',* (1992, p.257) These might include pictorial perspectives that show depth and spatiality.

However Corner recognises that other non-single point perspective can better articulate experience. See also later section, Alternative representations of landscape: *ways of seeing.*

> *'These representations deploy graphic signs and symbols which are rich with connotative value, unlike the strictly denotive symbol systems used in notational drawing. Expression in representation works because of the way in which semantically rich symbols (marks, gestures, shapes, colours) can be related to metaphoric figures that disclose an infinite network of associated meanings.'* (Corner, 1992, p.260)

Towards *realism*

Within environmental management and specifically applications in landscape architecture, visualisations (for Forest Design Plans, and the LVIAs in Environmental Impact Assessment) have been areas of advancement of technology-based visualisation. The basic *wire frames* to represent topography

and grid-based application of a render have given way to more sophisticated photomontages, three dimension computer models with aerial photography drapes, three dimensional modelling of individual features, and the capacity to move through the landscape in animated sequences. Gaming technology has also advanced the technologies required for virtual reality models to represent and navigate within the landscape, and to show, for example, people and animals.

A general observation would still be that for computer modelling the standards of architectural visualisation are more convincing than those reached for landscape subjects. The rendering of the naturally derived forms, surfaces and materials of landscape subjects seems inherently more artistically challenging and technically difficult to achieve than for built structures.

> *'Real landscapes are highly complex structures often covering very large areas. For visualisation this is an extremely challenging task. .....the most important variables determining the visual appearance of a landscape are terrain, vegetation, animals and humans, water, built structures as well as atmosphere and light (Erving 2001). Depending on the issues, the planning purposes or the landscape in question, only some of these landscape elements may be present or need to be represented in high detail. However, each of these elements could be a major obstacle for a representation with a high degree of realism.'* (Lange, Bishop,1999, p.15)

The rich geometry, layered structure, and detail scale of perception of vegetation makes it particularly difficult to visualise and whilst good results are now being achieved through detail polygon modelling, this technique can be extremely time consuming. Given the speed of developments in this area though it might be assumed that the technical obstacles of representing reality may be for the most part overcome in the near future.

> *'In contrast to the technological challenges, perceptual and societal issues of visualisation have hardly been touched .....in landscape visualisation research.'* (Lange, Bishop,1999, p.20)

Bishop and Lange ask two important questions:

- How much reality is needed for environmental planning?
- What is the difference in terms of perception between naturalism (looking like) and realism?

Realism versus interpretation

There have been recent debates about landscape visualisation in landscape architecture and landscape archaeology. With respect to windfarm visualisations: Architec Animation Studios questioned guidance prepared by SNH, (horner + maclennan and Envision for SNH, 2006) regarding the technical aspects of photography used in LVIAs, such that *real perception* could best be replicated in the representations. With respect to reconstructions of historic artefacts, Jeffries (In Carver, Lelong, 2004, p.121-131) queries the ethics and authenticity of virtual reality models. Both of these debates are concerned with how visualisations may help or hinder understanding of the public / lay audience.

In order to better understand such problems, the work of Jeffries, concerned with modelling landscapes of the past is looked at in more detail. Stephen Sheppard's work is introduced, which is concerned with *'predictive landscape visualisations in the fields of design, planning, public involvement, resource management decision making'.* (In Bishop and Lange eds. 1999, p. 80) Sheppard's considers issues of quality rather than the utility of landscape visualisation technology, there by asking questions about reliability and validity, recognising that cost effectiveness and operational functionality *'are likely to be taken care of by market forces sooner or later.'* (p.79) He cautions, *'with steadily increasing access to more user-friendly software, the lack of training or guidance in the use of visualisation poses a significant threat to valid public process.'* (p.86) He further questions the need for better visualisations:

> *'...some emerging forms of visualisation may be positively dangerous in an objective decision-making context. Users may see more elaborate technologies with real time, big screens, massive data bases, etc as overwhelming or suspect, as overly persuasive...'* (Shepphard in Bishop and Lange eds. 1999, p.89)

Both the ability to visualise apparent reality and the ease with which this can be achieved are concerns of Jeffries:

> *'The character of what can be presented to us on-screen has the potential to blur our ability to distinguish between what is a special effect and what is a record of an actual event or object. At the same time, digital recording technologies that can be readily applied have moved from prototype to specialist equipment, to almost commonplace.'* (Jeffries in Carver, Lelong, 2004)

> *'The novelty of Virtual Reality environments, the depth of information they can carry and the impact of new levels of interactivity combine to produce a powerfully seductive form of record. It is exactly the power and impact of these technologies, some of which fade as they become commonplace, that should encourage us to take special care when using them in academic discourse or as a mode of public information'* (Jeffries in Carver, Lelong, 2004)

However both these researchers are interested in achieving higher realism, and wish to raise discussion, not as criticism, but as a basis to developing a *'critical framework with which to interpret three-dimensional records once generated.'* (Jeffries in Carver, Lelong, p.121) To this end Sheppard proposes an interim code of ethics:

> *'The use of landscape visualisations should be appropriate to the stage of development of the project under consideration, to the landscape being shown, to the types of decisions being made or questions being addressed, to the audience observing the visualisations, to the setting in which the presentation is being made, and to the experience level of the preparer.'* (Shepphard in Bishop and Lange eds. 1999, p. 87)

Further Sheppard promotes *ethical design for visualisation systems*, whereby two conceptual design approaches are considered:

- A prescriptive approach that establishes principles and standards to which visualisation must conform.
- A more flexible and interactive approach, which allows the user / viewer greater control over the visualisation.

Jeffries (In Carver Lelong, 2004) recognises the transitional phase of *'moving from investigation of the technologies towards their adoption'* and the need to think about the impacts and specifically the affect on perception of audiences. He calls for the making explicit of the interpretive processes used to create Virtual Reality models. Whilst Jeffries works in the context of archaeology, this parallels the principles faced by designers and planners: *'Research audiences may be well equipped to critically appraise the model but public audiences may not be so well equipped.'*

It can be impossible for any audiences to distinguish between conjecture and reality in Virtual Reality models, simply by how realistic it appears. Even with apparently realistic visualisation, there is a selective and interpretive process that underlies them.

> *'The areas where caution needs to be exercised relate almost entirely to models that blur the boundaries between "real" and "realistic". The Arts and Humanities Data Service Guide to Good Practice for creating and using Virtual Reality states clearly that "VR images, like other graphical illustrations are merely vehicles for elucidating or clarifying information to the user. It is clarification, not realism or accuracy, that is the centre of any illustration…." (AHDS 2003, 2.6.1) Despite this, much VR work is still concentrated on trying to produce "accurate" and "realistic" representation of past environments.'* (Jeffries in Carver, Lelong, 2004)

There is further concern with respect to the experiential aspects of Virtual Reality models, and the users' abilities to appraise this:

> *'Essentially no amount of detail and realism in a Virtual landscape can replicate the experience of being in that landscape if the way it is being experienced is intrinsically unnatural.'* (Jeffries in Carver, Lelong, 2004)

James Corner extends an understanding of the landscape image from purely visual to *eidetic,* that is to say embracing acoustic, tactile, cognitive, and intuitive. He makes the distinction between the *'insiders'* experience of landscape and the view of the *'outsider'*, recognising that the emphasis shifts away from *'object appearances to processes of formation'* and *'dynamics of occupancy ….. While these processes may be imaged, they are not necessarily susceptible to picturing.'* (p.159)

> *'To the degree that everyday inhabitants experience landscapes; they do so in a general state of distraction and more through habit and use than through vision alone. Their eidetic image of place is bound into a greater phenomenological range of significance than vision of contemplation affords. By contrast, the outsider – the tourist, the spectator, the state, the administrative authority, the designer and planner – views landscape as an object, a thing to behold, and not only scenically but instrumentally and ideologically. Enterprises such as tourism, planning, and resource management are predicated on such synoptic management of land.'* (Corner, 1999, p.155)

Alternative representations of landscapes: *ways of seeing*

James Corner (1996, 1999) proposes *eidetic images* as a way of extending the visual language of landscape architecture, and landscape representation more generally: in order to better express and embrace historic and potential involvement with landscapes. This section explores some of the alternatives to the natural perspectives often sought through landscape visualisation, including overviews, mapping, diagrams, constructing composite views and taking multiple perspectives. Charles Waldheim (1999) recognises that *'the picturing of the landscape has become synonymous with the discipline itself.'*

> *'Without question landscape has been constructed through visual representations (plans, maps, views). Beyond that simple assertion, landscape comes prefabricated in two senses. On the one hand our capacity for visual recognition (to see a landscape as a landscape) has*

> *been constructed by our experience with, and fluency in, visual representations known as landscapes. On the other hand, landscape has been constructed so as to be seen as a landscape. This accounts for the privileged status of views, vistas, and choreographers sequences or frames, in much humanist landscape discourse. It is also ….a rich and diverse range of contemporary possibilities for rethinking the representation of landscapes.'* (Waldheim in Corner, 1999, p.127)

In practice based experimentation Donald Schön (2002, p.151) identifies a transactional relationship between the inquirer / practitioner and the situation; one informs the other. The inquirer *'is in the situation he seeks to understand …..he understands the situation by trying to change it.'* Schön's conceptualisation, allows visualisation to be framed as a professional landscape architectural task, with a special role in landscape change. This aligns with Corner's (1999) and Waldheim's (1999) ideas, which connect how we represent, with how we are able to think about and change landscapes.

Corner provides a critique against *'scenography'*. He makes the distinction between the Dutch derived *landskip,* as a visual and pictorial contrivance, and *landschaft,* as a used and inhabited place, with a *'fuller, more synaesthetic, less picturable range'.* (1999, p.158) In favouring the latter Corner is taking a multi-sensorial approach, as also advocated by Chris Tilley, with *'the fusion of the senses'* (2004, p.14-16).

> *'The emphasis here shifts from object appearances to processes of formation, dynamics of occupancy, and the poetics of becoming. While these processes may be imaged, they are not necessarily susceptible to picturing. As with reading a book, or listening to music, the shaping of images occurs mentally. Thus if the role of the landscape architect is less to picture or represent these activities than it is to facilitate, instigate, and diversify their effects in time, then the development of more performative ways of imaging (as devising, enabling, unfolding techniques) is fundamental to the task.'* (Corner, 1999, p.159)

Corner calls for a revitalisation in the field of landscape, including: *'the need to experiment, to devise more sophisticated modes of notation and representation….'* (1999, p.23) He refers to the relatively small number of techniques used by landscape architects, compared to the great works of art over many centuries, moving away from the traditional two dimensional pictorial approach of representing landscapes, (and therefore also sketching per se). (1999, p.162)

> *'….a need to revise, enhance, and invent forms of representational technique that might engender more engaging landscapes than the still-life vignettes of many contemporary landscapes…*
> *the future of landscape as a culturally significant practice is dependant on the capacity of its inventors to image the world in new ways and to body forth those images in richly phenomenal and efficacious terms.'* (Corner, 1999, p.167)

<u>The overview and axonometrics: taking in the *whole landscape view*</u>

James Corner refers to Le Corbusier's reflections on the view from the air in his book, Aircraft, published 1935:

> *'…the eye now sees in substance what the mind could only subjectively conceive; (the view from the air) is a new function added to our senses; it is a new standard of measurement; it is the basis of a new sensation.'* (Corner, 1999, p.159)

Charles Waldheim (1999) considers the shift between pictorial imagery and aerial surveillance, maps, plans, and aerial photography. He recognises the development of the aerial view as a distinct mode of visual perception, with a distinctive potential with regard to space:

> *'…the representation of landscape – its picturing – is not simply the recording of a visual perception as inscribed on a two dimensional surface but also operates as a mechanism for the construction of space.'* (Waldheim in Corner ed. 1999, p.127)

Waldheim proposes that aerial photography can help to reconcile the polarization of landscape approaches, between the *'scenic'* and the *'metric'*; the former being concerned with the view and appearance, and the latter with the material and ecological dimensions. (p.130) He suggests an objective role for aerial photography:

> *'Aerial photography provides a modern rupture with precious modes of representation and allows an implicit critique of the objectification of land….. a modern tool of instrumentality, surveillance, and control, useful for exposing hidden cultural and environmental processes while establishing new frames for future projects.'* (pp.131,132)

He points to Ian McHarg's classic book, Design with Nature, (McHarg, 1969, cited in Waldheim, 1999, p.132) and the use of aerial photography and maps as tools of analysis and planning. Taking Measure Across the American Landscape, (Corner, MacLean, 1996) uses aerial vision to represent the landscape, and as a *way of seeing*: to understand the past and reference it to help plan and design for the future. The combination of both stunning aerial photographs, and interpretations through map-based drawings, connect the actual overview with an inner vision of interpretation and potential landscape change. Corner sees aerial representation as having *'agency of transformation'*. (p.19) It is this interpretive aspect of the overview that is of relevance to this thesis, the layer of response and thought that has selected and represented specific ideas that look both backwards and forwards. It also shifts the book beyond being *a visual and descriptive survey of the American landscape.*

> *'…how landscape representation (especially that of aerial vision) not only reflects a given reality but also conditions a way of seeing and acting in the world. In other words, how a particular people view, value, and act upon the land is in large part structured through their codes, conventions and schemata of representation – their cultural images.'* (Corner, 1996, p.xi)

The seduction of aerial views and the new visual dimension they offer, originated in the imagination as "birds eye views", and became a reality through representation in early balloon photography in 1858 from 262 feet, the use of kites, rockets, and pigeons, before airplanes. (Newall, 1969, p.9) It's use has developed for military purposes, mapping, and revealing archaeology. Views from early space exploration and the various Apollo missions changed the common perception and vision of the earth, *'impacting on the collective consciousness'.* (Waldheim in Corner, 1999, p.133) Now satellite imagery is in everyday use, such as our weather forecasts, and oblique aerial photography has entered our homes and is widely popular in coffee table books, in capturing the patterns of the earth, and introducing our landscapes to the masses, such as the *Coast* television program. Air travel also provides people with the real experience of birds eye views.

Reflections by photographers who specialise in the overview provide some interesting insights in to its use and significance as a form of landscape representation. Grand Design by Georg Gerster, is set out around a series of picture essays, including *A Roof Over One's Head* and *The Farmer as Artist.* The former introduces Le Corbusier's *'wonderful lesson'* (Le Corbusier in Gerster, 1988, p.65) of architecture without architects, as well as an aerial view of planned urbanism. In the latter Gerster introduces the *new science* of *"fieldology": 'the comparative study of fields of different peoples'*, (1988, p.161) but from Gerster's aesthetic perspective and recognition of incidental artistry.

> *'...an aerial photograph is a unique vehicle for wonder, vexation, joy, wrath – it never leaves one cold. To those sensitive to visual impressions it is a new training in observation, an unusual school of vision; to the concerned contemporary it is a mirror in which he can see himself as part of his terrestrial environment.'* (Gerster, 1988, book jacket)

Patricia MacDonald describes how, *'The low level aerial viewpoint permits a "drawing back" which allows the observer to see connections and contrasts which are not always apparent on the ground.'* (MacDonald, 1989, book jacket) Yann Arthus-Bertrand's *coffee table* book set out a clear environmental agenda in a popular to: *'provide a record of world's environment, and a benchmark for the future.'* (Arthus Bertrand, 1999) Perhaps more than any other aerial photography book, The Earth from the Air achieved an iconic status for the imagery, popular for their beauty, as much as for document.

Aerial photography has a special research role for archaeology, and it was possibly through its use for archaeological purpose that such images fell to popular attention. Muir outlines the benefits of aerial photography in revealing buried features, *'completely or virtually invisible to the earthbound observer .... shadow marks, crop marks, soil marks, parch marks'*, but also explains the shift from ground to aerial viewpoint:

> *'...the essence of the air photograph is the unfamiliar view. The landsman tends to see the landscape in profile .....In a flat landscape like the Fens, the visible land surface is seen as a narrow, ribbon-like strip and a mere hemline to the vast expanse of sky above. In fact this surfaceis richly and fascinatingly patterned....'* (Muir, 1983, p.9)

In her essay Aerial Photography in Archaeology and its Pioneers, Trumpler describes the development of aerial photography, from systematic surveys, as well as incidental findings through other coverage such as for military, or mapping purposes. She recognises that kites and balloons remain important in aerial photography fieldwork, as aeroplane flights can be prohibitively expensive.

> *'Even today aerial photography continues to enjoy a special significance in archaeology: seen from the air, details come together to form a unified whole, fragments acquire a pattern, and the abstract becomes concrete. .....only images taken from the above give an overview of the site as a whole and show it is part of its natural environment. They show the*

landscape, its geographical context and the area covered by a settlement, together with its natural resources and the factors that lend it protection.' (Trumpler in Gerster, 2003, p.9)

The axonometric projection is much used in architecture, and to some degree in portrayal of landscapes, to show the cohesive whole design from an elevated view. However, as a projection to scale and from a plan, the laws of perspective are suspended:

'If the hierarchical and somewhat reassuring space of linear perspective places the observer in a frozen position, the spectator of the axonometric world is nowhere and everywhere at once' (Imbert in Treib, 2008, p.130)

Both plans and axonometric views demand an imaginative leap:

'Plans lie beyond normal experience, and this is the very reason so many people have difficulty in understanding them. The plan gives us a coherent idea at the expense of spatial experience.' (Treib, 2008b, p.115)

'The axonometric view is an intellectual view: it shows things as they are to the mind and not to the eye.' (Imbert in Treib, 2008, p.132)

The Cairngorms National Park Authority recently commissioned Heinz Vielkind, the Austrian artist, to paint five overviews of the Park, depicting the area from the general direction of the main approaches. Vielkind is the last of a family-line of specialist artists, who have depicted large scale landscapes, to provide a *whole view,* similar to either a birds eye type view or aerial photograph, but infact based on an axonometric projection, adjusted artistically to make the most of an areas character and suggest spatial recession. Such artistic views remain popular today, as they provide an image that is accessible to people, without specialist understanding and interpretation. It relies on their experience of the place and orientates through subtle emphasis of landmarks and other landscape features.

Mapping

James Corner develops map drawings as a complement to aerial photography, in Taking Measure Across the American Landscape. He describes how they relate, and significantly that the drawings make explicit that which the photographic images leave as implicit. He also recognises a *'more poetic, creative potential'* within their aesthetic.

> *'..the map, with its synoptic mode of presentation, increasingly assumed new levels of significance for us. ..... a greater level of spatial and topographical understanding. I would often scribble over an old crumpled map to find structural relationships across the ground and to plot paths across it. These notations prompted me to make a series of map drawings, which became composites of maps with photographic and satellite images, often overlaid with dimensional and logistical equations and other invisible lines of measure.*
>
> *.....these map notation drawings are meant to complement the photographs and at the same time to stand apart from them. Both types of image are aerial, offering a synoptic perspective, but the map-drawings play on certain planning abstractions, such as making visible strategic organisations of elements across a ground plane or revealing certain scale and interrelational structures. .....Consequently the drawings (but also the photographs, in a different and less explicit way) reveal how typically prosaic and analytical methods of synoptic planning and land systematization harbor more poetic, creative potential.'* (Corner, 1996, p.xvii)

Robert MacFarlane's description of the development of the representation of mountains on maps provides a useful background to how aerial perception of the imagination developed, but also a historic evolution of illustrative devices to show mountains, the largest significant three dimensional landscape feature and landmark:

> *'On early European maps, mountains were represented figuratively as molehills, or little brown blossoms of rock.*
> *By the fifteenth century .....mountains continued to be represented figuratively, as were forests (as miniature groves of stylized fir trees) and seas (as rows of blue wavelets frozen in mid lap) The mountains of these*

early maps were drawn as they might appear if one were looking at them from the level of a valley: the "plan view" – the view from on top – had not yet been conceived of.
The Renaissancve cartographers devised ways of suggesting three dimensionality. The ubiquitous molehill was adapted to create cone-shaped, flattened, or craggy mountains. Shadowing was introduced to suggest relief from the ground around, and hachures – short lines of shading – began to be used to provide information about slope and steepness: the steeper the slope, the denser and darker the hachures. Contour lines were an invention of the sixteenth century, but they could not properly be used until advances in survey techniques provided the detail required for them.' (Macfarlane, 2003, pp.182-183)

MacFarlane also introduces the work of Francis Galton (1822-1911), who had believed that *'maps should convey more than just spatial information about terrain. He wanted to give travellers a phenomenal impression of the lands they visited. Maps ....should duplicate the smells, scents and sounds of a place.'* (p.185)

'Orthography', diagrams, cut-aways, cross sections, and layers

The publisher Dorling Kindersley has become defined by its cutaways images, with popular ranges of travel books, and children's books, specialising in cross sectional, axonometric and three-dimensional illustrations. However, the device is not new, as described here of Leonardo da Vinci's graphic innovations:

'Leonardo's anatomical drawings were not only the most detailed and skilful ever attempted up to his time, but his way of representing his findings was thoroughly modern. In fact working with a form of what we would now call hyper-text and the cutaway, layering technique used in the creation of CD-Roms, his illustrative method was five hundred years ahead of his time. Leonardo frequently drew three dimensional arrays of muscles or organs of the body from several different perspectives .... In his drawings of bones, he details their appearance from all angles .... In his drawings of the skull and the brain he offers cutaways and sections of the cerebral cortex drawn again in layers as if peeling the skin of an onion.' (White, 2000, p.279)

James Corner (Corner, 1999, p.164) establishes the idea of eidetic observations and complex images. He calls for *'a kind of thinking that is neither instrumental nor representational but simultaneously both.'* Da Vinci can be seen to have achieved this with absolute artistry. Corner refers to David Leatherbarrow, and the power of *'unfolding'.*

> *'The fact that orthography enable architectural insight and ideation in such fundamental and yet inexhaustible ways makes it perhaps the most powerful tool of eidetic imaging for spatial design .....*
> *The dismantling and isolation of layers and elements in plan not only proposes a productive working method, akin to montage, but also focuses attention on the logic of making the landscape rather than its appearance per se.'* (Corner, 1999)

Tim Ingold suggests that the ruler became part of the architects toolkit when they moved indoors to the studio, rather than supervising the construction of buildings directly on site. He refers to Turnbull (1993):

> *'The design for major monuments, such as cathedrals were not drawn up in advance but improvised on site. Lines were drawn in the earth itself or stretched with string, at full scale, or incised directly on to materials by means of templates.'* (Ingold, 2007a, p.161)

Mark Hewitt outlines the development of the architects *"idea sketch"* (Hewitt in Treib, 2008, p.29) from the Renaissance workshops (p. 31) to the *"esquisse"* of the Beaux Arts system of architectural education that predominated in the first half of the Twentieth Century. The essential *'cardinal abstractions of Euchlidean geometry – the x, y, and z axes – each projected on a separate plane in plan, section, and elevation'* in an attempt to *'represent in to one coherent drawing'.* (In Treib, 2008, p.31)

Taking multiple perspectives: *experiential imagery*

Apparently natural views can be constructed from different source materials. The War Artist and illustrator Edward Bawden, wrote in a letter home from Rome

in 1945 about drawing a group of Partisans. He was able to work spontaneously, pulling sketches together later, the composite image arising as a solution to address the circumstances:

> *'I made quick sketches of them as they stood about and talked, did this for several days and then combined the sketches in a composite drawing. The finished painting is the most successful I have yet done of that type of subject: I also liked the method of working, for me it is new and enjoyable.'* (McLean ed. 1989, p.91)

Chip Sullivan uses a variety of formats to explain landscapes and ideas about drawing, including a cartoon strip *Telling Untold Stories,* (In Treib, 2008a), which introduces sequence, narrative and participation in an innovative but familiar way. He refers to serial drawings:

Our visual experiences are fundamentally constructs from how we experience places, move around, see and come to understand through a series of impressions, which come together. This is well expressed by the photographer Gordon Stainforth:

> *'Because a mountain is so massive and difficult to travel around, and so often concealed by the weather, it is only ever revealed to us in glimpses. It is a series of transitory and ethereal 'appearances' rather than a single, solid object – an amalgam of different sightings rather than a permanent unchanging thing.*
> *No single viewpoint, of whatever height or angle – nor a large number of different viewpoints – will ever give us a true and complete picture of the whole mountain. Short of taking an extensive helicopter flight around it, we are left with the essentially creative task of piecing together a whole variety of disparate images – from different viewpoints, at different times, and in different weather conditions.*
> *A mountain, as we observe and come to understand it, is a mental construct. To a much greater extent than we may be prepared to admit, it is 'moulded' by our imagination. More than we may realise, it is <u>our</u> landscape.'* (Stainforth, 1991)

Robert Macfarlane set out how in the nineteenth century, Romanticism for the mountains led to the creation of the experience of mountains through the use of composite images in paintings, and 'theatre':

> *'.....nineteenth century artists ....filled their canvases with precipitous scenery, using distorted scales, unconventional viewpoints and disrupted horizons to unbalance their viewers and pull them into the vertiginous worlds of their images'* (Macfarlane, 2003, p.161)

And of the *'Alporama',* with a multiple vanishing point painting of the Mont Blanc, In a rotunda / theatre setting, which aimed at hyperrealism and was renowned to instil disorientation and vertigo. There is a link here to the Virtual Landscape Theatre, by the Macaulay Institute, (Macaulay Institute, 2008) which seeks to recreate an *in the round* impression of how we experience views, for use in public participation on landscape change, recognising the limitations of the photographic frame. Mark Johnston describes how he developed the format of his photographs, which create an *in the round* image, suggesting an experiential perspective of *looking around.*

> *'A problem that I find with conventional photography is that all it can really do is say "I am editing this for you. You must look at this because I have taken the distractions away." But there doesn't have to be that framed rectangle of space and time, so in the past few years I got rid of it. ....it allows the viewer to be involved more and enjoy the sensation of looking.'* (Johnston, 1997)

Dianne Harris and David Hays (In Treib, 2008, p.22) consider historical views of designed landscapes to explore how the view has been used in particular ways, beyond realistic representation. On an image of Llanerch, of which the accuracy has been questioned, they propose the distortion of shifting perspectives as a deliberate device:

> *'....to suggest the image in question is deficient because it manipulates perspective is to ignore the specific context in which the picture was*

> *made. While sometimes a consequence of practical inexperience, shifting perspective could also be adopted deliberately and for specific ends. Like the birds-eye view it emerged as an attempt to conflate the advantages of persective and mapping in a single image, with the object of creating a more meaningful representation of landscape than could be acheivedusinf perspective or mapping alone.'* (Harris and Hays in Treib, 2008, p.24

Returning to James Corner: whilst his *eidetic images* employ the graphic vocabulary of landscape architecture: maps, plans, sections, photographs, annotations, his work can be considered alongside the arts. Through the images Corner searches for new ways to represent that are reminiscent in idea, if not expression, of the fractured perspectives and constructions of the Cubists, Picasso and Braque, or of the combined still life and landscape drawings and paintings, by the recognised *'leading figure in British Modernism'*, (Stephens ed. 2008, p.9) Ben Nicholson. Influenced in many cases by *primitive* or *naïve art*, either cultures or individuals, artists have sought the alternative perspective and views experienced, rather than captured by the traditional picture frame. They developed a visual language that moves away from natural perspectives, employing collage and layering, to *construct* multi-facetted and distorted views, which encompass more than one perspective and emphasise particular features or elements. (Garlake in Tate and others, 2008, p. 99)

In considering the interpretive potential for visual communication a fuller study of these areas would be of great interest, as the arts remains a huge laboratory of experimentation about alternatives in landscape representation. However, there remains a balance to be struck between images that communicate ideas of space and character clearly, those that are suggestive of a more holistic experience, and those that require significant levels of interpretation before they are readily accessible. In being fit for purpose in terms of communication, the priority of representations by landscape architects must remain visual and intellectual accessibility: particularly given the obligations of democratising

landscape decisions through the European Landscape Convention, and challenges of meaningful public participation.

SECTION FOUR

Lessons for education and practice

Section Four assesses the findings of this study against potential applications in landscape practice and education. Chapter 8 considers some contemporary needs with respect to landscape architecture: design, landscape representation, in addressing landscape experience, and landscape education. Potential roles of field sketching are proposed. Concluding points review the research aims and propositions against the findings, and reflects finally on any lessons for *reflection-on-practice*.

Contents

Preamble

When something is simply very enjoyable to do, it is difficult really to know the advantages. You do it because you enjoy it and want to do it in that manner for the pleasure it gives you. For me the pleasure of sketching comes out of some combination of beauty and wonder, documentation, and understanding, and just exploring places.

> *'Often artists don't know what they mean, or only find out later. Sometimes they intend one thing and end up with another. They work in between meaning and reason.'* (Searle, as personal communication from Brent Millar, 2010)

Then you always do it in that way, because it becomes how you do it. This has been the way with me and sketching, developing my own way of working and being in the landscape. It serves functional purposes and passes time, but was so ingrained as a practice that how I did it, or why that might be important, had become obscure.

'There is a time to go out, to be dispersed in light, and a time to return, faculty by faculty, to rest in one's own weight.'

Thomas A Clark, (2000) In Praise of Walking

The thesis attempts to demystify the practice of field sketching: a making explicit of the tacit knowledge and benefits of its *doing*.

Time matters. At the end of my first discussion with my supervisor, Catharine Ward Thompson, her perceptive conclusion was, *'You may find what really matters is the time spent on site.'* (Personal communication, 2000)

Reflecting on landscape projects, the recurring theme has been time. Time with the landscape: time absorbing the landscape, just being there; time observing the landscape in all its temporal states, time to watch tides ebb and flow, time to watch the clouds cast their shadows; time walking to and fro, taking in the journeys and the wider context. Time with people, relationships need time; time to let informalities break down and interaction to begin; time to listen and exchange ideas; time to share experiences and tasks. Time with myself.

Sketching takes time, but it allows so many other things to go on at the same time. The field sketch is an interaction and a dialogue with the place, other people, and with the sketcher. As a process and a notation it gives us the time and relationships that matter in landscape work. When I arrived at Hainault Forest, and on The Island of Rum, and at Loch Ruel, for a day, some weeks, and a turn of the tide, the experiences of being in the place underpinned everything that developed later in the more abstract world of studio and office.

The scope of the study was to take in the whole practice and range of influences: from planning site visits, being on site, undertaking the sketch, and developing site notations, through to some selected applications, and considering the effects of external conditions such as weather conditions, and input by other people. The range has been involving and has thrown me into some diverse areas of literature, from artists and poets taking delight in intangibles, to theorists trying to unravel them. As well as a greater understanding of the potentials of field sketching, the study expanded an understanding regarding the perception of landscape character, that is, of the landscape itself and how we experience it.

Chapter 8 Exploring potential roles for field sketching in landscape education and practice

Introduction

Chapter 8 brings together the findings from *reflection-on-practice* and the additional observations (*data*), from the literary review to consider some selected applications in landscape practice: landscape design, visualisation, and addressing landscape experience. The potential roles of field sketching are explored with summary frameworks. The frameworks set out the main ideas from theoretical models, which have been identified through the literary review as significant within each application, against the roles of field sketching and associated visualisations. Further consideration is given to the application of field sketching in education, and a summary framework developed.

Field sketching as a designer's tool draws on two areas. In addressing the principal of landscape design as a *reflective practice,* Donald Schön's model of *reflection-in-action* (2002) is adapted. Design that has *landscape-fit* as an over arching principle is considered and relevant models addressing spatial structure and experiential qualities are referred to, principally: Lynch (1960), Cullen (1990), Norberg-Schultz (1984), Bell (2001), and Dee (2001).

Re-viewing visualisation also considers two areas: the principles of interpretation, which underpin *interpretive communication* (Veverka, 1994, Ham, 1992, Beck and Cable, 2002), which are discussed; and key concepts developed by James Corner (1999) in his understanding of *eidetic imagery.*

The framework proposed to address landscape experience refers to work on perception: interpretations of Gibson's *Theory of Affordances* by Ingold (2007d) and Heft (2010); and consideration of phenomenological ideas by Ingold (2007d) and Tilley (2004).

Field sketching in education has potential roles in parallel with many of those in practice: the benefits relevant to students and practitioners alike. However, these can be argued to be of particular significance in providing a basis to learning and practice, which if not introduced, as a core skill through education may not be developed readily at a later stage. As well as reiterating some of these applications, a framework is developed that summarises some key concepts from Adams (2002), Edwards (2001), Sennett (2008), Thompson Hester (2008), and Torreano (2007).

Chapter 8 attempts to build theory. It considers how we conceptualise the technique of field sketching, the sketch and its development and use, rather than demonstrating practical application.

Field sketching as a *designer's tool*

Field sketching and associated visualisations are proposed as being media that stimulate and record *reflection,* and help to articulate spatial, visual and experiential concepts of landscape design.

Background

A fundamental problem that underlies the landscape assessment and design and affects landscape visualisation is the inability for landscape architects, as individuals, or as a professional body, to readily explain what they do. This can be explained in terms of Donald Schön's ideas regarding reflective practice. Schön's work (1991, pp.49,50) was interpreted in detail from a landscape architectural perspective in the literature review. The solution, he states, is a redirection of attention to the process of *doing.* (1991, p.282)

These short-fallings are well demonstrated through the national guidance for preparing landscape character assessments, (LCA) (SNH and the Countryside Agency, 2002) and landscape and visual impact assessments. (LVIA) (The Landscape Institute and IEMA, 2004) The guides are professionally well used and regarded, such as in Public Inquiry work, but significantly whilst the wider process is mapped out, the specific details of the assessment process are not made explicit. Examples of good practice are shown and demonstrate how it should be done, but the procedures for assessment and design are not actually explained. The *doing process* remains obscure. Within LVIA, the required connection between assessment and design is often unclear, or missing.

There is a range of professional design guidance available for larger scale landscape planning and design today that takes a landscape character based approach. Notable examples are those for Small Farm Woodlands, (FCS, 2008)

and Marine Aquaculture and the Landscape. (SNH, 2006) Illustrations are provided to help land managers, foresters, and developers contextualise their proposals, within different landscape characters, and in terms of the visual nature of the proposals. Generally design principles of scale, proportion, relationship to topography, and establishment of *good landscape fit* are well articulated in this sort of guidance. However, whilst the guidance use visuals to demonstrate typically positive and negative scenarios, and the generalities of what might look acceptable, they do not explicitly set out how such judgements of *good fit* can be made. The principles within such guidance remain open to interpretation, and the status of the guidance itself is generally discretionary.

Some key tasks:

- Transparency of judgements and articulation of *landscape data* and *evidence*
- Iteration between assessment and design

Frameworks to consider the field sketch as a *designer's tool*

Reflective practice

Schön's work, *reflection-in-action* is used as a conceptual framework to unpack reflective practice. The stages *set out by* Schön in the Reflective Practitioner (p,128-167) are: problem setting, familiarisation, *on-the-spot experiment,* reaching satisfaction and testing through *virtual worlds*. Collaboration is also included as an aspect that cross cuts these stages, and is of particular relevance to this thesis.

The stages of Schöns *reflection-in-action* was set out in Chapter 7, interpreted as relates to the activities of a landscape architect. Here these are used to consider the potential role of field sketching and visualisations developed from

field sketches in helping designer's to articulate their reflective processes through the actions of design. It is suggested that field sketching and sketchbooks are important in *revealing* the designer's process and judgements;

Specifically it is proposed that field sketches and the sketchbook practice helps landscape architects articulate their design process. This articulation is valuable for the designer themselves in the dynamic processes that make up design, when working with collaborators, in explaining ideas to clients and the public, and essential where the landscape evidence base must be made explicit.

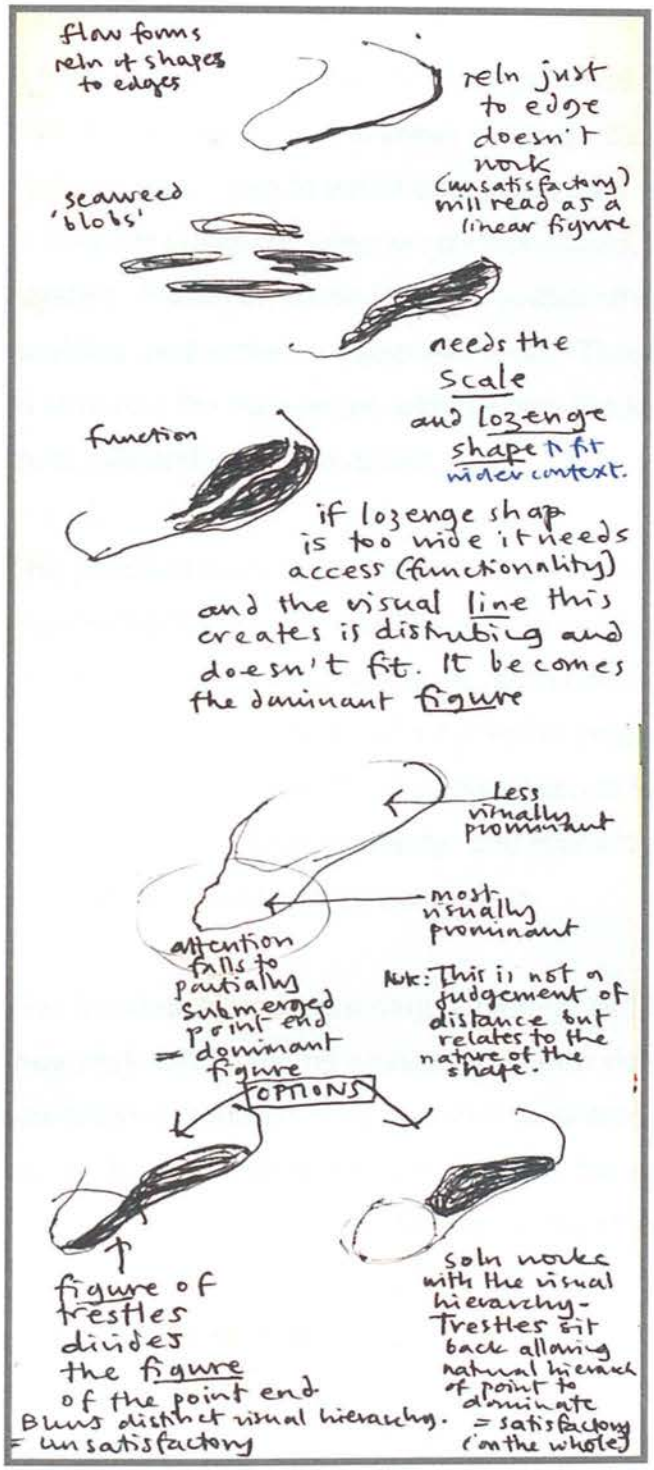
Table 8.1: **Framework: *reflective practice***

Aspect of theory and key concepts	**Reference**	**Potential role of field sketching and visualisation / *interpretive images***
Reflection-in-action	Donald Schön (2002)	• Field sketching is proposed as an activity that surfaces design thinking. • The sketch can be regarded as an *experiment* to test design ideas. • A sketch or workbook is a private designer's space to work out ideas, but also can be used to present options to others, or as a medium for interaction: potentially useful in setting up Schön's *'drawing talking language'* – a visual discourse useful in assessment, design and communication. • A sketchbook is a medium with which to develop the capacity for *reflective practice*: a developed capacity for *reflection-in-action* is *artistry*.
Problem setting / reframing	(p. 79,130)	• Quick sketches can be useful in clarifying the needs and implications of a brief, providing an opportunity to both assess the existing scenario, visualise change, and test initial design ideas. • Even with initial simple sketches the main principles can be articulated: a single sketch can be key to establishing the *essential* visual issues. • Setting the parameters at this stage helps the client access the designer's processes and builds sympathy between the needs of both parties. • A sketch is a medium for dialogue and interaction: an activity that binds intentions around landscape implications, rather than creating distance through abstract data. • Sketching a landscape is a sort of *tracing*, which has a role of repetition of the essential visual qualities observed.
Past experience and familiarisation	(p.138-140)	• Field sketching accelerates familiarity with the spatial structure and character of a particular place. • Drawing a landscape re-activates memories and associations of specific design issues encountered elsewhere. • Sketchbooks and workbooks are a record of design solutions and help landscape practitioners consciously build up a *repertoire*.

On-the-spot-experiment	(p.60,145,147)	• Sketching a landscape is a *setting out* of the key visual lines, which are a foundation to inform assessment and design. • An analytical sketch captures topographic structure and land use pattern, the principle aspects that inform *landscape fit.* • The sketch provides a template, which serves as a reference, against which scenarios of good and bad fit can be judged. • Sketch visuals as an *exploratory experiment,* can be implemented literally *on-the-spot,* such that the testing of ideas immediately factors in Sontag's *first-hand experience.*
Reaching satisfaction	(p.152)	• Trialling of sketch options can be an easy part of an iterative process. • The sketch can be readily formalised as the process of design is finalised, such that the graphic style is honest to the stage of decision-making.
Virtual worlds	(p.157-158)	• A sketchbook is Schön's archetypal *'graphic world'* and can represent Schön's *virtual world* for shared experiences. • The sketch is intermediate between the reality, which is simultaneously available in the field, and the ideas of change, which can be continued on in further paper iterations, traced, retraced and fine-tuned. • The sketch visual provides a ready form of visualisation to test ideas prior to realisation. • Sketching provides a context for Schön's *experiment*: selecting out the information that is relevant to the design problem. • The overview can capture *whole landscape views,* that are particularly effective in contextualising areas of study in wider settings, and seeing the connections that need to be considered. • Intervisibility is a key concern regarding landscape work. Sketches offer a qualitative appreciation, which can be used alongside ZTVs and other GIS data.
Collaboration	(p.80,270,273)	• A sketchbook is potentially useful in setting up the *'drawing talking language'* of Schön's *'reflective practice'.* • 'Sketching and drawing can be part of Schön's *'language of designing'.* • A field sketch sets out the landscape architect's *visual data,* or *evidence,* defining as it does the

		key visual lines, selected characteristics, and through annotation, explicit intentions. • The client can be involved directly in the experiment of visualisation, and effectively *buys in* to the design principles. Generates flexibility of requirements. • Sketch visuals are a quick way of the landscape architect presenting their ideas, such that other professionals can see the implications that might influence their concerns. • Consensus building: the implications of others can also be sketched quickly to illustrate sensitivities and opportunities they present. • Sketches and maps can be used together to demonstrate both visual and spatial implications simultaneously, helping resolve spatial commonality and likely conflicts. • Sketching brings visualisation skills directly into the field, thereby contributing another way of working within scientific environmental teams: extending the ways of working within the range of reflective practice. • The sketch is tool for interaction that allows designers and collaborators to enter one anothers', *'appreciative systems and to make reciprocal translations from one to the other'*

The following page illustrates the *on-the-spot experiment, reaching satisfaction,* and *virtual worlds,* of *reflection-in-action*, undertaken for the Loch Ruel project. See Chapter 3, Case Study outlines, for context. The iterative nature of design work is demonstrated: moving forwards and backwards between assessment and design, and the flexibility of sketch visuals to undertake this.



Framing the landscape problem / parameters

The potential for good fit revealed at low tide

On-the-spot experiment

Repetition: revisiting and refining the landscape problem

A seeking of landscape fit

Reaching satisfaction

Fig. 8.1: Loch Ruel oyster trestles: *reflection-in-action*

Landscape-fit

Understanding the field sketch as a potential *design tool* to achieve *landscape-fit* has referenced a range of areas of design theory. The numerous models and systems developed to assist designers, take various inter-related approaches as to how the *design problem* is conceptualised. Many of the key concepts are re-iterated. However, some focus on spatial structures, some on experiential qualities, and some on visual elements. These broad themes have been used to structure the framework, within which the key concepts are those considered most relevant for *landscape-fit.*

The potential roles of field sketching and associated visualisation are set out against the themes of: spatial structure and organisation, character, the structure of *Place,* experience and dimension, and *figure-ground.* A final theme, *intuitive leaps* and stages of the creative process is included as is in particularly pertinent to *landscape-fit,* an appreciation of which is acknowledged by, for example, Christopher Alexander and Richard Sennett, as arriving as if from nowhere as a fully-formed awareness.

This theoretical understanding of models and systems, and the key concepts they work with, become embedded in how designers work and are readily assimilated in the process of analytical sketching. The sketch grounds concepts immediately in a real situation, the existing scenario, and allows possible other scenarios to be tried out against the sketch outlines and shapes. The field sketch provides a structural breakdown of the landscape scene; strong visual lines, focal points, pattern, which can serve as a *template* for the siting, scale, form, and nature of proposals. Different types of sketch may be better suited to the specific visual qualities, or guiding design principles in a particular situation. As examples: linear sketches may suit a landscape where patterns of enclosure are a defining characteristic, colour washes, where it is the colours of vegetation swards, or line drawings, with a single colour, where it is figure-

ground patterns, such as woodlands set in open ground. The analytical field sketch is suggested as forming a fundamental *template* to ground design in assessment.

The design principles and options emerge directly from the analytical field sketch. By working from site observations, which underpin both the visual and landscape assessment, and the template for design principles, the assessment and design process are integrated. Environmental impact assessments and landscape design could truly be regarded as *iterative processes'* (The Landscape Institute and IEMA, 2004, p.13), where this can be seen to be demonstrated.

The following framework sets out the summarised aspects of theory, taken from the literature review, with main areas of reference provided, against the potential roles of field sketching and visualisation.

Table 8.2: **Framework: *landscape-fit***

Aspect of theory and key concepts	**Reference**	**Potential role of field sketching and visualisation / *interpretive images***
Landscape-fit		• The potential role of a field sketch in providing / being a template for shapes and forms of future possibilities. • In being a sort of spatial diagram, a sketch posses an organising influence on topographic structure and landscape pattern.
Spatial structure and character		
Models of spatial structure and organisation • *Centres, focus* • *Paths, routes* • *Edges* • *Openings. Thresholds, transition* • *Focus, landmarks* • *Districts*	Lynch (1960) Dee (2001) Southwell (2004) Thwaites, Simkins (2007)	• Theoretical models and systems that analyse the design process provide intellectual ways in to, and ways through design problems, which generally require interpretation by a designer. A field sketch can provide a literally 'ground up' approach. • Annotated field sketches *describe through analysis*, and offer different levels of assessment through *hierarchies* of drawn and written information. • The drawn line of a sketch is rooted in observation and informed by analysis. It traces or outlines essential lines of form and pattern.
Character • *Over arching character, identity, distinctiveness* • *Topography* • *Vegetation* • *Buildings* • *Water*	Cullen (1960) Norberg-Schultz (1984) Dee (2001)	• Drawing outline structures of form and pattern, and rendering, creates a hierarchy of mark making that parallels the visual ordering of forms and surface textures. • The artistry of sketching and range of controlled and gestural mark making, both analyses and expresses character.
Experiential and visual		
The structure of Place • *'Structural correspondence' of shapes: natural and cultural / topological and geometrical* • *Descriptions of 'landscape' and 'settlement'* • *Analysis of*	Norberg-Schultz (1984, pp.5-13)	• The field sketch as template can serve an important role in helping to develop design solutions that fit. • Analysis drawings generate form that responds to a place: a sketch provides a way to make certain forces conspicuous, those of formation (topography) and use (land use and settlement) – even a simple drawing does this. • A sketch combines natural and cultural form and pattern through the tendency to *align* and *contrast* at an abstract / structural level in achieving representation. As such it is particularly effective where there are synergies

'space' and 'character'		between the two, such as traditional cultural landscapes.
Experience and dimension, a 'relational stance' • *'Environmental Levels', scale, hierarchies* • *Distance, recession, space* • *Wider, regional, local* • *Serial vision* • *'Hereness / thereness'*	Cullen (1990) Appleyard (1964) Norberg-Schultz (1984) Dee (2001) Waldheim (1999)	• Differentiation of foreground, mid distance and background is a powerful way to suggest distance and automatically suggests the *nested* surroundings of local, regional and wider contexts. • Sketching and visualisation can employ a range of formal perspective constructions or simpler compositional devices to indicate space. • The gamut of expressive mark making allows creations of space and recession through the artistry of sketching. • Quick sketches and thumbnails are well suited to recording and expressing landscapes when on the move: sequential studies across space (and tme).
Figure-ground • *Gestalt: the whole and the parts* • *Shape* • *Ambiguity* • *Units and pattern components in hierarchical fit*	Rubins (1915, quoted in Tilley) (2004) Alexander [1964] in Jencks and Kropf (1997) Bell (2004)	• *Landscape-fit* and the visual perception of *figure-ground* seems to be a phenomena that can be shown and demonstrated more easily than explained. • Drawing works by outlining shapes that can be perceived: from key structural lines of the topography to pattern and so forth. As such there is a pre-disposition to *look for shapes* that is both required by the process of drawing and stimulated by it. • Drawings utilise hierarchical graphic devices that can address the hierarchies of unit and pattern components that the designer addresses. • Simple rendering can readily pick out distinctive features, such as the shading in of woodland canopies. The simplest sketches can show this: more elaborate studies will tend to put in detail that weakens the clear perception. • With photographs the information remains implicit.
The creative process		
Intuitive leaps • Inductive reasoning – *what if?* questions • *Reformatting*	Sennett (2008, pp.209-12) Lawson (2007,	• Sketching is a technique that stimulates intuition, the sketchbook a tool to *'organise the imaginative experience.'* • Sketching as a form of enquiry fits in to this inductive mode of thought and can facilitate these stages: sketching and developing sketch

and possibilities • *Adjacency* • *Surfacing tacit knowledge*	pp.147-150)	design options engenders an imaginative approach to seeing design solutions. • The ambiguity of sketching means that it remains an open inquiry, generating options and favouring a '*what if?'*, rather than a 'therefore…' line of reasoning. • Sketching literally *draws out* possibilities from a landscape, by selecting information that we *intuitively* know to fit. • Drawing stimulates recognition of metaphor and associative thinking: Sennetts *'bringing of two unlike domains together'*. • By bringing together a visual *skeleton*, or structure of the existing situation, in the form of a sketch (or 3-D diagram), alongside the proposal, as an idea or similarly *sketched out*, a solution-seeking designer can readily address the puzzle with potential *fits*. • This could be aligned with the concept of *'adjacency'* in Sennett's suggested breakdown of the *'intuitive leap'*, where two unlike domains are brought together. • The *'ambiguity'* of the sketch offers the potential to generate large numbers of provisional solutions that may be precluded within more definitive thinking, or expression.

Re-viewing visualisation

Field sketching and associated visualisations are proposed as being both fundamentally interpretative and to embed and stimulate *active-perception.*

Background

Artists and illustrators have been responsible for visualisation up until the invention of photography. The pursuit of realistic representations was down to the broad context and understanding of graphic and compositional devices, the skill of the artist, the mode of working, and reproduction, and the prevailing styles and fashions of the times. The photograph both freed illustrative artistic expression from an agenda of realism, and set a mark towards a new pursuit of increasing realism through technology.

Today, with digital graphics, computer modelling, and virtual reality, this area continues to advance. Whilst hand-generated graphics remain popular and relevant, the appeal they have, or actual value is not well understood. The work on perception by Ingold (2007d) and Heft (2010), and on craft and drawing by Sennett (2008), Ingold (2007a) and Tilley (2004), can inform an understanding of how we perceive as visualisers and viewers. Bishop and Lange (2005), and Jeffries (2004) address the questionable limits to technology through consideration of authenticity and ethics.

Whilst reality remains a practice goal for landscape visualisation, photographs and photo-reality tend to prevail. See Chapter 1. This seems to be determined more from the point that *reality* is a goal that can be seen: the alternatives, which fall most readily to the arts, may seem too varied and unstructured. James Corner (1996, 1999) offers a different approach to representing

landscapes, drawing on the language of landscape architecture, with combinations of map, plan, sketch, diagram, and photographic view, and applying multiple perspectives, and ambiguous meanings. The concept and expression of an *eidetic image* is a radical departure from description and *representational reality*. It interprets rather than describes, suggests experiential perspectives rather than view-based pictorial ones, and attempts to engage the designer / inquirer and viewer with both historic processes and inaugurating the possibilities of landscape change.

These recent debates regarding landscape visualisation are discussed in more detail in the literature review. A brief overview of the background of interpretation and its limits with respect to visualisation of interpretation is given in this section as context. Some key tasks of visualisation:

- Validating and specifying *interpretative* visualisations, rather than representing *reality*
- Active perception: the experiential perspective

Discussion and frameworks to consider *re-viewing* visualisation

Interpretive imagery

The potential roles of field sketching and associated visualisation are discussed in relation to the interpretive principles, adapted from Freeman Tilden by John Veverka. (1992) There are a number of other excellent variations of these principles adapted for professional practice, notably: Sam Ham (1992), Susan Jacobson (1999), and Larry Beck and Ted Cable. (2002) However, Veverka's analytical approach provides the basis of a model fit for the purpose of this discussion.

There is a need for transparency of the validity and reliability of visualisations, achievable in part through information on their provenance covering technical issues and a statement of intention, which should be supplied with them and used in their interpretation; and in part through their inherent qualities. To achieve the latter, realism, or perceived-realism, may not be the goal of visualisation. Additionally, realism may not be the most effective way to stimulate the imagination of the audience, and may even serve to suppress imagination by misleading the viewer in to thinking that 'it is as it appears'. This thesis explores the benefits of sketch visuals and *interpretive imagery* that whilst not necessarily photo realistic, may serve well a primary purpose of transparent and effective visual communication. The emphasis moves away from representation of reality to an action of obvious and *formally specified* interpretation.

In order to establish the argument for explicitly *interpretive imagery* the context for professional interpretation is given: the formalities in terms of its philosophy, and tenets with respect to the approach and methods. It is suggested that the guidance offered with respect to extending a more structured approach to the communicative content of any illustrative visuals, is limited. Illustrations are often used decoratively, or for the more general benefits of *adding colour.* Whilst valuable purposes, it is proposed that the principles that are well developed for written interpretation, could be adapted and extended to cover visual content. The potential role of field sketches and associated visuals are set out in these respects.

Background and discussion: towards *interpretive imagery*

The nature guides of the nineteenth and early twentieth century, promoting the beauty of the American wilderness *'blazed the trail to modern interpretation'* (Regnier and others, 1994, p.3). Enos Mills is now regarded as the founder of interpretation. In the 1950s after years of research into interpretation in the

National Parks, the writer Freeman Tilden, first formalised the activity of interpretation and set out a philosophy and essence for the profession. His principles are still the recognised standard today. (Regnier and others, 1994, pp.4-5) Two inspirational American interpreters today are Sam Ham (1992) and John Veverka, (1994) who have further developed the practice with work on the development of strong stories with integrating themes, interpretive planning setting out a specific communication strategy, and detailed *how to do* guidance.

Veverka (1994, p.19) sets out that interpretation is a *'type of communication process',* and differentiates between *information* and *interpretation*: the former dispensing facts and the latter revealing a story, or larger message, based on Tilden's Principles (p.20).

Whilst *verbal and non verbal communication* are recognised, and the significance of *seeing* noted as being second only to *doing* in what visitors retain from a visit, (Veverka, 1994, p.25) the thrust of the guidance is on how to write for interpretation, and what media to use. The use of illustrations and visualisation is valued and they are widely used, but how the content of the illustrations could be developed and specifically structured for communicative aims is not addressed.

It is a proposal of this thesis that visualisations generally, and those developed from field sketches in particular have an important role in developing the illustrative component of interpretation. The following discussion considers how *participation* with the landscape through fieldwork and field sketching can be an effective technique of communication: with possible applications in landscape / environmental interpretation and also for public participation in landscape change. The subsequent framework sets out the potential role of imagery to meet interpretive aims and principles: including, but not exclusively field sketches and associated visuals.

The *participative technique of* field sketching:
an interpretive media to support people in *doing the seeing*

The activity of field sketching is not set out in the framework, but is of important note. The observations through workshops and tutorials indicate that the act of drawing appears to engage participants with landscape concepts.

For example, drawing the landscapes with work colleagues, (as part of a staff development day) in a sketching workshop, the use of pencils and line work was found to be particularly relevant *in that particular place,* as expressing the strongly linear qualities of the walled landscapes and rock strata. Talking of the linear qualities of a landscape in an abstract context, not in the field, can be challenging with audiences. However, in the context of the participants *doing the seeing through drawing*, such possibilities of communicating about visual and scenic quality became more possible. See Chapter 4.

This is an idea also supported by the practical work of Betty Edwards, (2001) who suggests that drawing actually stimulates perception. The interpretations of Gibson's *Theory of Affordances* by Ingold (2007d) and Heft (2010) also provide a theoretical link between perception, with the broader activities of fieldwork and field sketching: movement in the landscape, body posture, attention, and the gesture of the hand. These ideas are set out in detail in the literature review. Facilitating people *doing the seeing* through drawing workshops has potential to be a powerful interpretive media, as well as a means of *effective* public participation. See also the subsequent section, Field sketching and education. This idea entirely lines up with the established interpretive principle that *doing* is the most effective mode of interpretation in terms of visitor communication. (Veverka, 1994, p.25)

Table 8.3: **Framework: *interpretive imagery***

Aspect of theory and key concepts	**Reference**	**Potential role of imagery to meet interpretive aims: including field sketches and associated visuals**
Communication styles: informational versus interpretation	Veverka, (1994, p.19)	• The *realistic* representational visual could be aligned with an *informational style*: Field sketches provide a fundamentally *interpretive style,* as they select out information. • Through the structured development of visuals their interpretive potential can be enhanced through adapting and combing images, annotating, design of layout and formatting of documents.
Tilden's Tips	(p.21)	
Provoke		• Hand-drawn visuals and visuals that include hand-drawn lines, engage people. The gesture of the line implies a *personal author.* • This strengthens the narrative *storytelling* potential of an image: the eye of the audience follows the drawn line as it might the gesture of a pointing hand. It stimulates *active perception.* (Sontag, 2010) • Visuals are more immediately provocative than words for the majority of audiences, and most children are likely to respond more to visuals.
Reveal		• The range of representational devices, including: cut-aways and diagrams within images, allow information to be concealed, or partially so. • The range of formatting available to present visual material, such as folded leaflets or booklets, or combinations of poster and book • The ambiguity of a sketch also • The potential hierarchy of images, within both the mark making devices and text can emphasise and subdue information, or make it more and less accessible to different audiences.
Relate		• The participative technique of field sketching and the sketches produced from it are fundamentally more engaging as they select out essential information – creating a sort of *caricature.* • The qualitative nature of landscapes are captured through field sketches and associated visuals. People can relate directly to *what a place is like*, • Overviews are effective in relating people to

		their environment. They help with orientation and provide a spatial and qualitative *virtual reality* with which people can more readily engage than map views. • The idea of *experiential* imagery is particularly pertinent with respect to illustrations that relate to peoples experience of the place. Direct experience is a powerful route to relating people to messages.
Interpretive Planning		
Unifying themes, key stories and themes, larger messages	(pp.19,40)	• Visualisations and *whole landscape* views are an effective way of integrating the overall and *so what* message with regard to the diversity of cultural and natural parts that make the landscape up. • A visualisation can hold a large amount of information, which is implicit, but presents simpler and unified messages through hierarchical graphic devices: composition; strong over-arching lines, shapes, colours; powerful narrative elements. • Overview illustrations literally present *overviews* with respect to encompassing themes. • Overviews and natural views present the qualitative dimension of what a *whole place* is like, rather than abstract or disjointed information.
Communication objectives: learning, behavioural, emotional	(p.45)	Visualisations can be adapted and manipulated with specific communication objectives in mind: • Content. • Hierarchical levels of information – hierarchy of graphic devices, both through drawing and mark making, the composition of different types of image, and use of annotations – direct, emphasise or subdue visual information. • Emphasis and *caricature.* • *Gestural and expressive mark making to stir emotions.* • *Controlled, authoritative and instructional diagrams to impart knowledge.*

Eidetic imagery

James Corner extends an understanding of the landscape image from purely visual, prioritising visual and formal qualities, to *'eidetic':* embracing acoustic, tactile, cognitive, and intuitive. Similar ideas are explored by Tilley from a phenomenological perspective, and Heft in interpreting Gibson's Affordances in the context of visual perception and aesthetics.

The potential roles of field sketching and associated visualisation are set out in a framework against the main ideas related to Corner's *eidetic images*: imaging activities and emergent realities, creativity and invention, possibilities and affordances, function and user, multi-sensorial perception, and the designer as an *'active-perceiver'*.

Visualisation provides an impression, but can never replicate how it feels to be in a place. Fundamentally this would be the key factor of significance as to whether people might care about landscape change, or not. To this end the engagement of peoples' imaginations, and the ability of the visualisation to stimulate is a proposed aim. Sketching engages the sketcher-inquirer through *participation* (see also p. XX) and the sketch engages the viewer as an object of artistry and direct and directed communication. A sketch image is *vivid,* in so much as it selects out essentials, and expresses the content artistically.

Table 8.4: **Framework: *eidetic imagery***

Aspect of theory and key concepts	**Reference**	**Potential role of field sketching and visualisation / *interpretive images***
Eidetic images	Corner (1999) Heft, (2010) Tilley (2004)	• A field sketch has many possibilities of adaptation and combination to create or complement other graphic devices, in move towards *eidetic imaging.* • The gamut of graphic devices used by landscape architects, including maps, photographs, diagrams, sketches, axonometric views, allow a move away from Corner's purely 2-D *picturing* of landscapes. • Arguably sketches and overviews are under-utilised by landscape architects, and photographs over used: the latter tend to emphasise pictorial representation rather than experiential interpretations, or *imaging.*
Imaging activities and emergent realities		• The potential role of field sketching as Corner's *imaging activity: a* field sketch provides a template for shapes and forms of future possibilities. • In being a sort of spatial diagram, a sketch posses an organising influence on topographic structure and landscape pattern. • Simple linear field sketches provide an impression of how people look, rather than the literal representation of what is visible. That is they show *how people experience visual qualities.* • By selecting out *what matters* visually, sketching helps the designer arrive quickly at the visual qualities, identify visual issues, and see design solutions.
Creativity and invention		• Field sketching provides a holistic design activity, combining observation, analysis, thinking, and representation. It is not its mere capacity to represent, but it is the imaging that allows the designer to test ideas of potential change against the existing scenario.
Possibilities and Affordances		• When we sketch we don't perceive and represent everything; only what is relevant to our brief, or *needs.* • In sketching we arrive from a direction of need and look for *possibilities.* • An annotated analytical sketch *'points to where the action is'*, effectively highlighting significant areas of an environment, making meaning

		explicit.
Function and user needs		• Through describing the selected aspects of a place, and with annotations identifying what is meaningful in it, sketching offers Heft's *relational stance* with the *functional possibilities* identified.
Multi-sensorial perception		• Fieldwork immerses the practitioner in the landscape in a multi-sensorial way. All the senses combine within perception. • A field sketch has expressive potential through the artistry and gesture of drawing. The holistic experience of perception will influence the sketch, through the general mood and directed attention of the sketcher. • The action of field sketching, the walking and the drawing, absorbs sensual information as perception; and the sketch expresses that in more and less controlled or spontaneous ways.
The designer as active-perceiver		• Fieldwork *involves* the designer with a place in an engaged, participative way, and across spatial and temporal dimensions. • Sketch is a 2-D approach, but is does not represent a purely *image-based* approach as it entails active participation within an landscape, and as such embeds something of Heft's *active perceiver stance.*

Integrating approaches: towards addressing landscape experience

This section considers the integration of the practical drawing-based activities of field sketching and visualisation from art and landscape architectural practice, with the theoretical models developed in archaeology and anthropology to address landscape experience. It proposes field sketching as a *participative technique* for practitioners in inquiry and the lay-public in public participation, and the sketch as an engaging visualisation, that have potential roles in addressing landscape experience.

Background

Landscape quality and experience have traditionally been the territory of poets, writers and artists. However, it has become an area of common interest across the landscape disciplines of landscape architecture, anthropology, and archaeology, with emerging interest in perception and values. Developments in technology such as remote sensing and virtual reality continue to allow increased distance from the environment, physically, in terms of direct sensual experience, emotional, or spiritual connection. This is true even in disciplines where landscape is the subject and experiential medium, and experience is considered to matter.

Across landscape disciplines, there is a struggle to move away from quantitative to qualitative methods and articulation about landscape. This is thrown into sharp relief where subjectivity is regarded as a stumbling block in *landscape evidence*: where the basis of professional judgements becomes a source of inconsistency and criticism. The human dimension of how a landscape makes us feel; the emotional resource of the environment could arguably be considered less well understood and valued than the ecological niches of other species.

Less tangible qualities such as wildness and tranquillity are recognised anecdotally for their contribution to our wellbeing, but a broader, comprehensive and consistent methodology evades such qualitative aspects of the landscape and landscape experience.

Landscape architects have the skills to articulate visual and spatial qualities, conceptualised through architectural and urban design theory, and represented in a range of architectural graphic techniques. However, they have not developed an overall conceptual framework for landscape experience. Practise tends to focus on the physical characteristics of landscape and not qualitative aspects or what the landscape means to people. Some areas of recent progress have been made.

The appreciation of *Wild Land*, has a long history with John Muir and the National Parks movement, and this has been added to with the more general appreciation of *wildness*, as a valuable landscape quality, identified most commonly, but not exclusively, with mountain areas and coasts. An interest in mapping and protecting areas that support experiences of *wildness* by public agencies and charities has gathered momentum with increasing pressure on, and potential loss of, such areas due to developments such as hill tracks, windfarms, power lines, fish farms, and commercial forestry. The Cairngorms National Park Authority (CNPA) undertook a mapping exercise for wild land, which combined traditional quantitative approaches using GIS to overlay data sets, with a qualitative public perception study. This implements the National Park Management Plan objective:

> *'The key areas for the experience of wild land qualities will be identified, protected and enhanced as a major source of enjoyment of the Park and wild land qualities throughout the rest of the park will be safeguarded.'* (CNPA, 2007)

The Campaign for the Protection of Rural England (CPRE) undertook an equivalent national exercise, *Tranquillity Mapping* (Jackson and others, 2008).

The report Experiencing Landscapes (LUC and Research Box, 2009), has been commissioned as part of the review of National Character Areas[1]: the aims being to understand whether the experiential *services* correlate to particular landscape characteristics or features. The research has engaged with the public, through workshops and focus groups, is based on:

> *'...extensive qualitative social research to provide baseline evidence of the cultural services and experiential qualities that landscapes provide...'* (LUC, and Research Box, 2009, preamble)

The research develops a matrix, which looks at *cultural services*, such as a sense of history, spirituality, learning, calm, inspiration, and escapism, against features and characteristics of landscapes, such as hills, mountains, and uplands, water, woodland, fields, and villages. Other landscape attributes, such as variety, simplicity, perceptions of quality and condition, are factored in through a less formal structure. This report is valuable in the outcomes and rich insight as to how people respond to landscape character in terms of the experiences they anticipate it could support.

Such approaches are in line with the European Landscape Convention (ELC) objectives. Landscape experience and perception has now been recognised and enshrined in the definition of landscape set out in Article 1 of the ELC:

> *'Landscape means an area, as perceived by people, whose character is the result of the action and interaction of natural and / or human factors.'* (Council of Europe, 2000)

Article 5 makes specific provision that members should:

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[1] Review of National Character Areas, Natural England, due to be completed 2010.

> '...establish procedures for the participation of the general public, local and regional authorities, and other parties with an interest in the definition and implementation of the landscape policies mentioned.....' (Council of Europe, 2000)

The democratisation of decisions affecting landscapes through the ELC, further impetus for public participation in local decision making from UK (England and Scotland) *Planning Reforms,* and the likely implications of the forthcoming *Localism Bill,* are all likely to see an increasing interest in public perception and the landscape.

However, methodologically, these areas of recent work fall out of the core activities of landscape architects, albeit they are worthwhile areas of work. This thesis seeks to ask; could landscape architects apply some of their core skills to the area of landscape experience.

A framework for addressing landscape experience and the potential role of field sketching

Perception, as set out by Gibson's *Theory of Affordances* and interpreted by Ingold and Heft, as well as the consideration of phenomenological ideas by Ingold and Tilley, have all been used to build a theoretical model for understanding landscape experience and perception. Familiarisation is included within the framework, as a concern that Tilley has developed both a theoretical and practical understanding of, which fits well with the other work.

The potential roles of field sketching and associated visualisation are set out in a framework against the experiential themes of: *affordances*, movement and perception, body centred experience, multi-sensorial perception, reflexivity and

encountering, participation and metaphor, familiarisation, and expression of an experiential perspective.

Perception is regarded as a mode of action, and not a pre-requisite for action. Specifically, the understanding lends support to the idea that movement and multi-sensorial engagement with the landscape should be regarded as intrinsic to the overall process of field sketching. Fieldwork does usually follow a pre-determined plan, such as the selected viewpoints in landscape assessment LVIA work. However, the full value comes from extending awareness beyond the predictable parameters: movement allows understanding to become apparent through observations. Moving and exploring landscapes through site visits have a variety of benefits that arise typically in current practice through coincidence rather than intended consequence. If the whole process of field sketching is taken, the action of moving around the landscape facilitates this aspect, and this exploratory phase of fieldwork and sketching can be argued to be fundamental, not merely an arbitrary way of arriving at the point to take in the view.

Also, if movement is understood to be an embedded part of the whole process of being on site, the aim of the field trip is extended to other forms of data collection than purely visual survey. It involves broader experiential aspects and a formal output that should be recognised as going beyond visual survey, and production, through either photograph or sketch, of representations of the landscape.

Where Ingold states, *'This is the world that we perceive, through active engagement with it'* (Ingold, 2005, p.96), this thesis proposes that field sketching has a role in *'perceiving landscapes in the course of active engagement'*. (Heft, 2010, p.14) Field sketching could in these terms be recognised as a participatory technique for *'active perception'*. It is the *embodied action* of

sketching, Tim Ingold's *'connections between perception, creativity, and skill'* (Ingold, 2007a) that are significant. A key concept for Harry Heft is: *'perceiving is best characterized as a perception-action process'.* (Heft, 2010, p.16)

These recent approaches to landscape experience developed by environmental psychologists, anthropologists and archaeologists provide a potential theoretical framework within which the potential roles of the various stages of the field sketching activity can be considered. These theoretical understandings on perception and movement, and on participation, align with and lend support to many of the principles proposed in this thesis, based around *reflection-on-practice*.

- Perception, is activated by the fieldwork and sketching,
- Through movement and exploration,
- And as a bodily activity of attention, drawing and giving expression,
- Observation, with a proactively *seeking eye,* focused by analytical drawing,
- All whilst being immersed through all the senses in the environment,
- With the sketchbook a medium for *reflectivity*,
- With the outcomes and benefits of an involved activity, participatory and engaged within the landscape,
- Building familiarity over time spent and understanding gained,
- And expressing the experience through artistry: gesture and craft.

The following framework sets out the summarised aspects of theory, taken from the literature review, with main areas of reference provided, against the potential roles of field sketching and visualisation.

Table 8.5: **Framework: landscape experience**

Aspect of theory and key concepts	Reference	Potential role of field sketching and visualisation / *interpretive images*
Affordances • *Possibilities* • *Of both environment and behaviour* • *Physical and psychical* • *Meaning is grounded in action*	Ingold (2000, pp.66-168) Tilley (2004, pp.24,30)	• Sketching is selective and searches *possibilities*, both opportunities and sensitivities, with respect to landscape programs, and visual qualitites. • Analytical sketching looks both inwards and outwards: a seeking activity that links internal queries (perceiver) to external possibilities (landscape). • Sketching is an action that stimulates perception and discovers meaning. Meaning arrives through the course of a sketch. Perception is practical and relates to actions. • The practicality of fieldwork and sketching acts as a vehicle to initiate, stimulate and sustain perception. • The action of sketching provides both Tilley's *'aid to perceiving'* and a means to sensitization and attunement to the landscape.
Movement and perception: • *Exploration and roving* • *Action-based perception* • *Body posture and attention* • *Attraction* • *Serial vision*	Ingold (2000, pp.66-168) Tilley, 2004, p.26) Heft (2010, pp.9-32)	• Movement, and sequential working through space and time, become part of the whole process: sketching in the field to development of sketches in to *experiential perspectives* that capture field experience. This understanding goes beyond the traditional approaches to visual perception and representation of landscapes. • Fieldwork and field sketching involves walking routes and *walking around.* These place the observer out in the landscape, as participant, with great freedom through movement, viewpoint selection, and sequential working, to take in the landscape setting. • The walking and drawing aspects of field sketching are actions, which direct and focus perception: the ambulant body seeking viewpoints, the postures of the body, direction of the head, and gestures of the hand. • The notion of attraction directs us to certain visual qualities and compositions (in views), and compulsions such as *where to stop and sketch.* • Sequential or serial sketches can capture the unfolding and changing views and dynamic aspects of visual perception, experienced as the

		landscape is moved through.
Body-centred experience: • *Point of view* • *Optimum viewing distances* • *Encounter* • *Habitual spatial knowledge through familiarity, and* • *Insider knowledge* • *Ambiguity*	Heft (Berleant quoted in Heft, 2010, p.29) Tilley (2004, pp.4-12, 30)	• Field sketching takes in an *insider*, or, *inside-out view* of landscapes. • Accessing viewpoints by walking encounters less known and coincidental viewpoints, and allows subtle adjustment of positioning. • Sequential sketches can articulate the process of *encountering*: sequence, transition, approach, arrival. • Spatial understanding and knowledge is accelerated through drawing. • Whilst the sketch takes in a *framed view,* the ambiguity of a sketch presents a less fixed perspective, where adjustments of position and combination of features capture *beyond the view.* A standard photograph must always be fixed. • The quality and gesture of the line can represent more hesitant to fixed ideas and feeling. A sketch is inherently *sketchy* to some degree. • Lines can be implied to continue beyond the page, annotations and thumbnail views extend content in different ways. • Visualisations can employ a range of imagery to portray ambiguity.
Multi-sensorial experience: • *Totality of sensual experience* • *Overlapping and blending of senses*	Ingold (2000, pp.151-153) Tilley, (2004, pp.14-16)	• Fieldwork exposes the perceiver to a range of environments, within which different senses are stimulated or suppressed. The character of a landscape full of bird song, but with simple visual qualities, such as moorland, may be hard to capture in image alone. • Annotations can help to build in broader sensuality. • Visualisations can employ a range of composite views and multiple perspectives to indicate the *fragmentation* of visual perception, or manipulations of a single view. • The craft of drawing and diverse range of expression through graphic devices and the use of colour, can suggest through association the fuller range of sensual experience. • Fieldwork and sketching processes a flood of sensually received information, rather than verbal processes and thoughts.
Reflexivity of perception and encountering:	Tilley (2004, pp.16-19)	• The eye, hand, brain, hand, eye movements of observation, drawing gesture, and thinking, make the process of sketching reflexive, with a

• *Reflexivity* • *Encountering, as a reflexive relationship* • *Emotional response* • *Reciprocity* • *Interchange* • *Authenticity and truth*		cycle of awareness between outer and inner landscapes. • The gestural range of a sketch with respect to mark making and colour can express the emotional responses embedded in perception. • The experience of sketching *'binds the subject to the world'*: in other words engages the sketcher with the landscape being studied. • Field sketching, the walking and the drawing, shifts from a more subject / object type relationship, to the blurred boundaries of engagement. Through sketching the perceiver can reach a *perceptual level.* • Through the meditative states induced by sketching, and *a letting go:* authentic work can be achieved that seems to reach a *truth* behind the landscape subject.
Participation and metaphor: • *Animism* • *Totenism* • *Analogic logic* • *Association*	Tilley (2004, pp.19-23)	• Fieldwork and sketching are embodied and sensory activities that engage the perceiver with the landscape through recovering "primitive" systems of thought and knowledge. Sketching builds knowledge through sensory experience. The artistic aspects of the activity helps to suppress purely logical approaches, characterised by more abstract and less grounded experience. • Sketching is a participative act, which accesses metaphorical thought processes. Metaphor can be a part of logical analysis, but the power of more poetic associations also occurs to, to a greater or lesser extent. • Drawing something is fundamentally grounded in *establishing resemblance.* • The gamut of mark making and expressive potential of sketching and visualisation can both give expression to metaphorical associations, and use metaphor to help express ideas and moods more strongly. • The characteristics of line, shape and pattern in landscapes are a rich source of metaphor. • Through atmospheric effects, ambiguity, implication, and the factors of change and dynamism in shapes, lend themselves to metaphoric associations. • Metaphor has a role in interpretation's principle functions: to reveal, relate, and provoke.
Familiarisation:	Tilley,	• *Ambulation through walking and drawings take*

• *Taking time* • *Appropriation of place* • *Making connections* • *Reflection* • *Extending knowledge* • *Deepening understanding* • *Engagement* • *Belonging*	(2004, pp.223-224)	*time.* Field sketching, is a way of *'slowing perception down', and like Tilley's "writing" are* • *'mediums through which knowledge of place is achieved'. Field sketching is active perception, which seeks and makes connections.* • *Explorative aspects of field sketching are orientating and build up spatial and other familiarity with places.* • *Drawing is reflective and translates holistic experience built up through familiarity into a single image.*
Expression of an experiential perspective: • *Communication* • *Expressive language* • *Meaning* • *"Direct bodily resonance"* • *Multi-sensorial* • *Emotional*	Tilley (2004, pp.23, 26-29)	• Field sketching could be seen as one of Tilley's *'experiential modes of engagement with the world.'* • *The hand drawn line shares Abram's 'direct bodily resonance': it is a direct gestural expression and carries a more potent resonance of communication.* • *Rooted in arts practice sketching and visualisation can draw on the range of artistic expression, including composite images and multiple perspectives, to try to show aspects of landscape experience that don't lend themselves to standard perspective views.* • *And similarly sketching can employ a range of art practice mark making options that to create different emotional quality.* • *Field sketching is a physical activity that immerses the enquirer in the landscape, involving movement and holistic multi-sensorial experience. The sketch is influenced by the whole experience, not just the visual aspects, as per se a photograph.* • *Sketching and visualisations extend the range of modes of description and languages of expression, with respect to landscapes, and with particular significance for the experiential dimensions.* • *The participative nature of sketching extends potential expression in to metaphor and the poetic associations of landscapes.*

By understanding visual perception through this sort of *unpacking* Gibson's Affordances model, by Ingold, Tilley and Heft, the significance of sketching as compared to photography can also be better understood:

- Sketching is a selective process, taking just the information that is needed, not recording everything there is. The drawing out of information through an ongoing fine-tuning of needs is fundamental to the perceptive act, not something we do after collecting everything.
- Sketching is a technique that embeds the action of drawing in the act of visual perception. The sketch records the experience of visual perception.
- Arguably, when working from photographs the site work begins back at the computer monitor, and at this stage it is too late to continue to actively engage with the place.
- The *spectator stance,* as per reviewing photographs as part of survey or visualisation, and *the engaged, active perceiver stance,* as per the direct experience of fieldwork and undertaking sketches, are different modes of perception. (Heft, 2010, pp. 27-28)

Field sketching and education

This section considers the role of field sketching in education. Field sketching can be a means for education: the sketch as an effective communication tool between teacher and student, and the tacit or *doing* knowledge accrued through the practices of fieldwork and analytical drawing a component of learning.

Background

Education in landscape architecture retains both fieldwork and drawing as core curricular activities. However, drawing in the field has to some degree been superseded by the use of photography, and hand-generated studio drawing replaced with the use of computer-based drawing and design packages. As fewer practitioners retain these once *core skills* of field sketching and the craft of drawing, within active practice, educational focus will inevitably shift.

However, as has been revealed through the main body of the thesis, the application of fieldwork and drawing in the field goes beyond being a means of representation. The potential can be far reaching in terms of understanding and articulating the spatial and visual qualities of landscape (arguably a landscape architect's *USP),* making the process of design and professional judgement explicit, activating perception and participation, and in effective communication, which is central to education.

As with public participation, there is a journey to be made in turning new students as *passive spectators* in to *active perceivers* (Heft, 2010). *Learning the language of landscape* (Thompson Hester, 2008) is a process, and as has been demonstrated the *doing* of fieldwork and drawing can facilitate it.

Potential roles of field sketching in education

Fieldwork and drawing in the field as conceptualised through this research defines *field sketching* as a technique that can be used to structure an approach to fieldwork. *Reading the landscape* can be daunting, in particular dealing with larger scale rural contexts, and especially for students unused to site assessments and appraisals. By setting out principles of the *doing* and *usability* of field sketching a methodological approach is put forwards that helps students deal with, achieve results, and enjoy this important aspect of landscape work. It also sets out a time frame or expectation on the part of the student that fieldwork will take time. By imposing the task of drawing in the field, the beneficial aspects of spending time on site are realised.

A teacher's skills in drawing can be a great prompt to students in developing their skills, in terms of practical demonstrations and purely as inspiration. Bridging both technical skill and artistry freehand sketching appeals to students on different levels.

The role of education in establishing professional practice

Many of the potential roles of field sketching as set out in the previous sections and frameworks as being of benefit to practitioners are also useful to students. In establishing a basis to professional practice, understanding such application is arguably more important in the context of education, where the *working habits* of practitioners are being established.

These are not set out as a formal framework. However the following reiterates some of the most relevant references and roles from the previous sections as examples:

- In a general sense reflective practice and self-awareness as landscape practitioners and decision makers is critical to allow students to mature as designers. The opportunities for this, and for building reflective practice in to a normal working practice, in a safe environment, can be well served at college, with opportunities for *crits* and feedback with tutors and other students, and encouragement to keep workbooks. See Table 8.1, which sets out Donald Schön's model of reflective practice, and in particular: the role of sketching as experimentation (Schön, 2002, p.60,145,147), the use of the sketchbook as the context for this experimentation and as a *virtual world* (p.157,158), and the sketch as a means of interaction and collaboration (p.80,270,273). As with professional collaboration, sketching can have an important role as a medium for interaction and dialogue between teacher and student: the drawn explanation and / or clarifications, such as, *is this what you mean?*
- Students are introduced to the main theoretical models that underpin the spatial and visual foundation of a landscape architectural training, such as originated by Cullen (1960) and Lynch (1960) and more recently re-interpreted by Dee (2001) and Bell (2007). See Table 8.2. Field sketching allows students to explore the ideas set out in the context of the *real world* scenarios of their project work. Moving around landscapes and drawing them is particularly effective at understanding the topography that gives landscapes their spatial structure, and building internal spatial models / *mental maps* within which to work. Students become familiar with seeing landscape in abstract visual terms, to which design solutions can be matched.
- Becoming a landscape architect requires a different way of relating to the landscape: engagement with places, and the perceptions of others. This needs to be learnt, along with diverse technical and functional aspects, and the aesthetic dimension. However, such understandings can be best developed through a participative approach. The unpacking of Gibson's

Theory of Affordances by Tilley (2004), Ingold (2007a), and Heft (2010) connect the actions of movement and drawing with stimulation of perception and participation. See Table 8.5. Field sketching within education helps students engage with landscapes in a more meaningful and involved way than desk study allows.

A framework to address some roles of field sketching in education

There are also some key concepts more specifically developed by educators, which can be usefully reviewed:

- Eileen Adams (2002) looks at how drawing techniques in children develop as an integral part of learning other skills, and recognised as being important in intellectual and emotional development. Drawing is proposed as an activity that mediates other things: understanding and communication, investigation and recall, engagement, analysis, storytelling, design and problem solving.
- In Betty Edwards ground breaking work, Drawing with the Right Hand Side of the Brain (2001), and the acknowledged success of her methods in teaching drawing, she identifies that it is not so much the practicalities of drawing that pose the problem of learning to draw, but a question of perception, or *seeing* in a way that allows representation. Edwards core ideas are based on *Gestalt,* and propose that seeing properly requires us to see them as components of a unifying whole. John Torreano expands on these ideas, and suggests that drawing can be enabled, by helping students *translate* three-dimensional qualities in to two-dimensional pattern. These can be drawn without the conflicts caused between *what we know* and *what we see,* which are caused by the confusing conception of space.
- Edwards also recognises that learning to draw does not passively use perception, but actively stimulates it. This idea aligns with the works of Tilley (2004), Ingold (2007a) , and Heft (2010). See Table 8.5.

- Richard Sennett (2008) does recognise the importance of craft practice, and hand drawing, such as field sketching can be conceptualised as craftwork. Sennett regards skill as trained practice, with a dynamic process of engagement: repetition through tracing and practice, self conscious awareness and tacit knowledge (ideas building on Donald Schön's model of reflective practice. See Table 8.1), and stages of competency.

The potential roles of field sketching are set out in a framework against the main ideas related to: drawing skills as a means to mediate other skills and development, drawing as *seeing properly*, and *field sketching* as craft practice.

Table 8.6: **Framework: education**

Aspect of theory and key concepts	Reference	Potential role of field sketching in education in landscape architecture and other disciplines
Drawing as a means to mediate and develop other skills: • *Understanding* • *Communication* • *Investigation* • *Recall* • *Engagement* • *Analysis* • *Storytelling* • *Design*	Adams (2002)	• Drawing in the field (and in landscape practice more generally), always serves alternative purposes. Thus whilst basic drawing skills may be taught, most learning occurs through practising the technique as a means to other outputs. As such field sketching is integrated with and can achieve broad learning outcomes beyond drawing skills. Also drawing skills accrue through other tasks.
Developing observation and seeing skills	Edwards (2001) Torreano (2007)	• Field sketching, or drawing in the field is a form of observational drawing. It addresses the primary subject, landscape. • Making / plotting a simple linear sketch is a process of delineation: the outlines of 3D forms that manifest as 2D shapes. • Landscapes lend themselves to a *Gestalt* approach as they are fundamentally compositional, being made up of a series of parts that add up to the whole scene.
Craft practice and learning: • *Repetition through tracing and practice* • *Self conscious awareness and tacit knowledge* • *Stages of competency*	Sennett (2008)	• The nature and range of sketchbook work lends itself to repeated use around themes or subjects: multiple pages are good vehicles for exploration, reworking and refinement. • Sketchbook work aligns itself with and implies learning and work-in-process rather than finalised ideas and presentation. • The sketchbook is a good tool for engendering reflective practice, as it is a personal space and the book format aligns it with diary keeping. • The *doing* of fieldwork and drawing in the field builds up a broad experience based understanding and knowledge about landscapes. • Working ideas through in a sketchbook provides an audit trail, which can be revisited and quarried for information and inspiration, throughout projects and sequentially through time. There is a flexibility of purpose and willingness *to make mistakes* and *let go of preconceived ideas*: critical to learning – and practice. Sketchbook work builds confidence.

Chapter 9 Concluding points

Introduction

Chapter 8 provided a review of the research findings in relation to a selection of specific applications of landscape education and practice. Chapter 9 stands back from this level of detail and looks again at the original research aims, outcomes and propositions, against the overall findings of the thesis.

A final section sets out some lessons learnt from the process of research: a critique of some aspects of the study that could be improved on in setting up future research along similar lines.

Research aims and outcomes

The outcomes of the thesis, set out in relation to the original research aims, are:

Overall research aim

To review the old technique of field sketching and refine it to serve some contemporary needs.

Outcome:

A re-evaluation of the value of field sketching, as a field technique, and fieldwork more generally.

Research aim one

To develop principles of practice, for field sketching and visualisation.

Outcomes:

- Definition of integrated *how to do* and *why important* principles of field sketching as a technique.
- Development of the idea of *interpretive imagery.*

Research aim two

To evaluate the role of field sketching and visualisation in some areas of landscape architectural practice.

Outcomes:

- Appreciation of the sketch as a designer's tool and *template* for *landscape-fit.*
- Development of *interpretive imagery,* as an approach to landscape representation.

Research aim three

To explore the potential role of field sketching as a *participative technique* in developing integrative approaches to landscape experience.

Outcome:

Appreciation of the action of field sketching as a *participative technique* to engage with landscapes, and of the resulting field sketch to communicate aspects of landscape experience.

Outcomes and future applications

The outcomes of the study could further be developed, towards:

- Recognition of field sketching as a core skill and activity in landscape-related fieldwork. Re-invigoration of field sketching in education and in practice.
- Review of landscape architectural standard guidance with respect to recognition of fieldwork, and full potentials of field sketching and visualisation.
- Development of *how-to-do* guidance (aimed principally at landscape architects) that embraces the whole activity: planning the site visit, being on site, undertaking the sketches, processing site notations, and developing the sketch in design and visualisation applications.
- Simple *how-to-do* field sketching and visualisation guidance aimed at non-artists / designers.
- Development of integrative approaches to address landscape experience, with field sketching as a *participative technique* and recognised medium for interaction and collaboration.

Anticipated areas of research application

It is anticipated that the research will be useful to teachers, students, researchers and practitioners in the following areas of activity:

Landscape architecture:

- Landscape character and visual assessment
- Landscape design
- Multi-disciplinary and collaborative working
- Public participation in landscape change
- New methods and approaches for visual and scenic studies

Visitor and countryside management:

- Interpretation of natural and cultural heritage
- Orientation and *wayfinding*

Archaeology:

- Complementary techniques in building methods for *experiential* or phenomenological archaeology

Research propositions

The research looked at the role of field sketching and visualisation in: developing knowledge and understanding, visual communication, and working with others: clients, other professionals, and stakeholders

Summary points

Developing knowledge and understanding

The following summary points provide an overview of field sketching and the development of knowledge and understanding:

- Knowledge and understanding are developed in the general activity of fieldwork, and through the specific undertaking of a sketch. Both being on site and drawing inform the enquirer.
- Time spent and movement are significant in the generation of knowledge and understanding. These temporal and spatial factors frame the experiences of the enquirer and are fundamental to their perceptions.
- Other influences include temporal conditions, such as season and weather, which emphasise certain information, and the input of other people, which provides alternative interpretations.
- The practicalities of fieldwork, planning and ambulation around the landscape, and the activity of drawing itself, all engage the enquirer in a participative way with the landscape. This active engagement deepens understanding and accelerates formation of, or sympathy towards, a sort of *insiders,* or inhabitant's perspective.
- Analytical sketching is visual thinking, and orientates around certain problems or objectives, selecting out specific information that a situation provides (or affords) the enquirer.

Visual communication

The following summary points provide an overview of field sketching and visual communication:

- A range of materials can be used for sketching, in a wide gamut of mark making options: with fixed nibs and hard points suited to more controlled and precise observation, and soft crayons or variable brushes suited to impressionistic and gestural work.
- The expressive qualities of drawing provides a range of graphic devices that can describe and infer: landscape scale, distance and space; the physical patterns, features and surface qualities of landscape character; how these are experienced as visual and scenic qualities; and with the influence of atmospheric effects.
- The shift between analysis of the landscape out there, to expression of the enquirer's emotional experience and engagement with it, can be fixed or more fluid, within or between studies. Attention of the enquirer shifts whilst sketching between outward observation and inner reflection in altering states of conscious thought and more intuitive responses.
- A sketch is a flexible field technique that is built up through a series of stages, within which the sketch itself mediates between the observer / enquirer, the landscape, and potentially collaborator-enquirers.
- The sketchbook is a practical means of collecting and gathering visual information in the field. It also has an active role as a framing device that commits the enquirer to the composition and capture of particular views from the wider visual experience of the landscape.
- Sketching is an intrinsically interpretive activity. It selects information through problem and objective centred analysis.
- Interpretive principles, to develop specific communication objectives, can be applied to visual communication in much the same way as written. A range or typology of *interpretive imagery* can be applied to ensure effective

communication. The way the landscape is represented affects how people see it; the *way of seeing* is a construct of representation.

- The field sketch as visualisation and developing visualisations from sketches involves processes of re-iteration or selection. Tracing, copying, and *re-writing*: from the lines the eye takes in observation, to selection and depiction as gestured by the hand in sketching, to rough visuals and final artwork, are all acts of refinement of observation and communication.
- The range of alternative representations of landscape has developed through history, with certain genres or modes facilitated by technology, and predominating in respect of particular needs or styles of the time. The arts and the sciences have both been important in the innovation of representation.
- Combination of representational techniques can reach wide audiences and address broad subjects.

Working with others: clients, other professionals, stakeholders

The following summary points provide an overview of field sketching and visualisations, and their use in developing client relationships, interdisciplinary working, and public / stakeholder participation:

- Time spent in the field and working together with people matters for the building of relationships and effective collaboration, as much as for serving other functional purposes, such as site survey or assessment.
  Effective collaboration = time + doing + a task + together.
- Communication goes on *between the lines,* when working with others, facilitating *intuitive leaps,* and instances of apparent telepathy.
- Sketching and talking is a dialogue of gestures of the hand and eyes in pointing and drawing: *'do you see what I mean?'* The sketch becomes a medium for interaction and discussion. Its exploring nature seeks common

ground and avoids confrontation through flexibility and subtlety of adjustment and expression.

- Collaboration between disciplines generates and highlights an interpretive approach to landscape work, where several perspectives inform the framing of the question, and the point of view.
- An analytical sketch is a visual language and can act as a vehicle to readily bring together information from several parties in a *virtual landscape*, and to provide a baseline for testing the visual implication of ideas, or landscape change. The sketch demonstrates the, *'so what would that mean?'*
- Field sketching and the field sketch are engaging. Sketching is involving: it is the *doing* and participation that matters. The field sketch is also involving: the ambiguity of *sketchiness* has the positive effect of stimulating the imagination *to fill in the gaps,* and thereby engages the viewer. So the nature of engagement is in the doing and the viewing.
- Sketch visuals imply incompleteness of idea or design, which is appropriate to the stage working of collaboration and public participation, suggesting flexibility and openness to change.

Lessons from *reflection-on-practice*

Broadening and deepening the study

Focusing on professionally driven projects pushed the study towards the development and use of field sketching, rather than the pure activity. A rich source of reflection and observation on drawing as craft would be other arts-based practice. Such orientations of this sort of study could enrich the practice observations / *data* different areas. Having established this method of reflection-on-practice in deriving and fine tuning principles, there would be scope to revisit a broader range of practice case studies.

Stimulating reflective practice

An interesting trend that can be observed across the practice observations is the dominant influence of certain aspects of activity in blocking reflection on-in-action on others. For example: accompaniment on site, such as during the Deadwood fieldwork masks factors based on experience and perception. Experience and perception related factors were strong presences in reflection when the researcher was working alone on site, such as for iuvanum, Flora of the Fells, and Dales Scenery projects. Understanding these sort of inter-relationships requires further study, such that in setting up the parameters of site visits, field notation, development and application, any potential inhibition can be either recognised and accounted for, or factored out.

Status and limitations of practice principles

The practice principles have been derived through observations made by the researcher, reflecting on her own practice. The thesis has established a process by which such observations are refined with increasing levels of formality, from anecdotal comments and beliefs, through reflection-on-practice, to practice observations (*data*), and finally to principles of practice *(theory*).

However, to this stage the principles are not tested or verified against external work or thought, or evaluated against the specific challenges facing contemporary landscape practice. Nor is it established whether these propositions rest solely in the preserve of the researcher's practice, or if the principles represent skills that could be acquired and applied by others. A similar study, necessarily more focused, across several practitioners, or structured surveys, could provide a better sample.

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